

SECTION:
ECONOMICS

*Aligul Aghayev,
ECS-European Communication School; France
ORCID: 0009-0004-5064-9147
E-mail: agayev.aligul@yahoo.com;*

**Statistical Determinants of German Tourists Destination Choice:
The Case of Goygol, Azerbaijan.**

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Abstract

This study examines the statistical factors that influence German tourists' decision to choose Goygol, Azerbaijan, as a tourism destination. While Azerbaijan possesses rich natural, historical, and cultural assets that favour tourism development, the share of tourism in the national economy remains limited. Goygol, with its German colonial heritage, scenic landscapes, and growing tourism infrastructure, holds untapped potential to attract international visitors, particularly from Germany. Using a survey-based research approach, the study collected data from 283 German respondents—individuals who had visited or intended to visit Azerbaijan. The survey assessed key factors such as affordability, transportation quality, language barriers, safety, service standards, and the availability of tourist activities. A multiple regression analysis was performed to determine which variables significantly impact the likelihood of choosing Goygol as a destination. Results showed that affordability, quality of transportation, the absence of language barriers, and quality accommodation were statistically significant and positively correlated with tourists' destination choice. In contrast, factors such as safety risks, availability of tourist activities, and overall service quality were not found to have significant influence. This research provides both theoretical and practical insights for tourism stakeholders in Azerbaijan. By identifying the most influential factors in tourist decision-making, particularly for a niche market such as German travellers, the findings help guide policy recommendations and regional development strategies. Enhancing language support services, improving transport connectivity, and investing in high-quality accommodation facilities could significantly boost Goygol's attractiveness as a cultural and eco-tourism hub.

Keywords: Goygol, German tourists, Tourism cluster, regression analysis, tourism destination choice

Introduction

The development prospects of the tourism business largely depend on the level of its infrastructure development. Tourism infrastructure comprises a group of industries that ensure a passive tourist balance. It has its own resources, including natural and recreational assets, production facilities, service enterprises, personnel, accommodation for tourists, food services, leisure activities, as well as information and transportation services. The tourism industry currently attracts 900 million visitors annually worldwide. Since tourism is inherently linked to natural areas, it has become one of the sectors globally that places significant emphasis on biodiversity and natural resources. Thus, efforts must be made to ensure tourism becomes more sustainable. The World Tourism Organization (UNWTO) has provided a general definition of sustainable tourism: "Sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future.

It is envisaged as leading to the management of all resources in such a way that economic, social, and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems." (UNWTO, 2023) In Azerbaijan, multiple regions participate in creating a favorable tourism environment and shaping a unified tourism product. Geographic location influences the formation of transnational and interregional tourism routes, the expansion of the tourism industry, and the further development of tour operator activities. Azerbaijan is a tourism complex offering diverse travel and leisure programs. Competitiveness is the ability of a country's enterprises to sustainably create value by fostering a conducive environment. It reflects a company's or organization's capability to deliver better value to customers compared to competitors (Zeynalli & Zeynalli, 2019). However, realizing these opportunities necessitates the implementation of multifaceted and effective projects for the development of tourism in the country. Several measures have been taken to promote tourism in Azerbaijan (Huseynli, 2019). From an economic perspective, one of the biggest challenges in Azerbaijan's tourism sector is that its share in the national economy is only 4.4%. Regrettably, while tourism is the third-largest sector globally, our share of this vast industry is merely 4–5%, indicating that many crucial steps must be taken to enhance the sector's contribution to the national economy. Among the primary reasons for this situation are the country's direct dependence on natural gas and oil, with the majority of investments being channeled into these sectors. Additionally, the 30-year-long Nagorno-Karabakh conflict and the occupation of nearly 20% of Azerbaijan's territory significantly hindered tourism development in the western part of the country. Another issue is that substantial expenditures were allocated to the arms and military industry due to the Nagorno-Karabakh conflict over three decades, all of which negatively impacted the tourism sector. Unfortunately, proving that Karabakh is an integral part of Azerbaijan and asserting the country's right to reclaim its territories required nearly 30 years of collaboration with international organizations and leading global powers (Aliyev, Mammadov & Ahmedova, 2022).

Development of Various Types of Tourism in the Republic of Azerbaijan: Favorable

Azerbaijan offers favorable conditions for the development of various types of tourism. The country's diverse natural geography, rich historical monuments, and ethnic diversity allow for a tailored macroeconomic tourism product in each region. By focusing on the development of a priority tourism type in any selected region while simultaneously advancing related production and service sectors through a cluster-based approach, the region can achieve comprehensive economic growth (Madatova, 2020). The unique characteristics of a region are defined by factors such as its natural environment, the ethnic and national distinctions of its past and present inhabitants, historical landmarks in towns and cities, and any famous literary or cinematic works associated with the area.

Goygol (Yelenendorf) as a Tourism Cluster: Historical and Cultural Context

Based on the points discussed regarding Fredericksburg (USA), when examining Goygol (formerly Yelenendorf) in Azerbaijan as a tourism cluster, the following key aspects should be noted:

- The city of Goygol (Yelenendorf) was founded in 1819 by the first German colonists in Azerbaijan. Empress Catherine II of Russia relocated Germans to the Caucasus to increase the Christian population in the region.

- In 1941, under Stalin's order, 22,841 Germans living in Azerbaijan were deported to Kazakhstan and Siberia (Aghayev, 2021).

By the time the Azerbaijan Democratic Republic (ADR) was established on May 28, 1918, around 6,000 Germans lived in Azerbaijan. One of the four members of the ADR Parliament's IX National Minorities faction was Lorens Kun, an ethnic German born in Yelenendorf in 1884. When the ADR Parliament began its work on December 7, 1918, Kun joined as a representative of Azerbaijan's German community.

- Information about Azerbaijan's Germans can be found in the memoirs of Nagi bey Sheykhzamanli, head of the ADR Security Service, as well as in the works of Muhammad Asad Bey, one of the most prominent figures in Azerbaijani émigré literature, particularly in his book "Oil and Blood in the East" (Aghayev, 2021).

Although no Germans currently live in Goygol, around 300 German-era buildings remain. Among them is the St. John Lutheran Church, built in 1854 and located on the town's central street—one of its most striking architectural landmarks.

It is particularly important to note that winemaking was one of the main economic activities of Goygol's German settlers. All these factors highlight Goygol's unique tourism potential among Azerbaijan's regions, demonstrating that it possesses at least as much appeal as Fredericksburg, Texas (Aghayev, 2021).

Geographical and Ecological Advantages

When analyzing Goygol as a tourism cluster, its proximity to Ganja (Azerbaijan's second-largest city) and the presence of the Goygol Nature Reserve within the district must also be emphasized.



Figure 1. Location of Goygol District, Google Maps (2023)

Tourism Infrastructure in Goygol District: Accommodation Statistics (2023)

According to 2023 statistics, Goygol District has a total of 7 hotel-type accommodation facilities with 167 rooms. Over the past two years, overnight stays have shown significant growth, reaching 6,776 nights in 2022 and 10,256 nights in 2023. In addition to formal lodging establishments, more than 100 private homes in the district and its central town offer daily room rentals, reflecting the increasing demand for tourist accommodations (Azerbaijan National Development Project Public Union, 2023).

	2018	2019	2020	2021	2022	2023
	4	4	4	4	4	7
Number of hotels and hotel-	72	72	72	72	72	167
Number of rooms, units	180	180	180	180	180	393
Number of accommodated	1,109	663	30	640	1,116	6,727
Number of overnight stays	1268	824	35	815	6,776	10,256

Table 1. Tourist Accommodation Facilities in Goygol (ARSSC, 2023)

Source: State Statistical Committee of the Republic of Azerbaijan

According to 2023 statistics, the total seating capacity in catering establishments throughout Goygol district center and the entire district area is 4,134 seats. It should be noted that most catering facilities are seasonal in nature [149, p.1]. Regarding events and festivals held in the district, only one "Novruz" festival is organized annually on March 20-21. There is only one vocational school in the district area where personnel are trained in 6 specialties, but tourism is not included among these specialties (goygol-ih.gov.az). According to 2019 statistics, only 10 people were employed in tourist accommodation establishments in Goygol district's tourism sector (Azerbaijan National Development Project Public Union, 2023).

	<i>Hotel Management</i>	<i>Transport Management</i>	<i>Travel Management</i>	<i>Food Services Management</i>	<i>Souvenir Management</i>	<i>Winemaking Enterprises</i>	<i>Car Rental Management</i>	<i>Educational Institutions</i>	<i>Food Suppliers</i>	<i>Local Government Bodies</i>	<i>NGOs</i>
<i>Hotel Management</i>	-	Medium	Good	Medium	Weak	Medium	Weak	Medium	Medium	Weak	Medium
<i>Transport Management</i>	Medium	-	Good	Good	None	Medium	Good	Weak	None	Weak	None
<i>Travel Management</i>	Good	Good	-	Good	Medium	Good	Medium	Medium	None	Medium	Medium
<i>Food Services Management</i>	Medium	Medium	Medium	-	Medium	Good	None	Weak	Medium	Medium	Weak
<i>Souvenir Management</i>	Medium	None	Medium	None	-	Medium	None	Weak	Medium	Medium	Medium
<i>Winemaking Enterprises</i>	Medium	None	Good	Good	Medium	-	None	Medium	Good	Weak	Medium
<i>Car Rental Management</i>	Weak	Good	Good	Weak	None	None	-	None	None	Weak	Weak
<i>Educational Institutions</i>	Weak	Weak	Medium	Medium	Weak	Medium	None	-	Weak	Good	Good
<i>Food Suppliers</i>	Medium	None	None	Medium	Medium	Medium	None	Medium	-	Medium	None
<i>Local Government Bodies</i>	Medium	Medium	Medium	Medium	Medium	Medium	Weak	Good	Medium	-	Good
<i>NGOs</i>	Medium	Medium	Medium	Weak	Medium	Weak	Weak	Good	None	Good	-

Table 2. Analysis of the Interrelationships Among the Participants of the Goygol Tourism Cluster
Source: by Author

Analysis of Relations Among Cluster Participants in the Goygol Region

Upon examining the table analyzing the relationships among cluster participants in the Goygol region, it was determined that joint cooperation among the elements cannot be realistically discussed. Instead of collaboration and coordination—which are the basic prerequisites for clustering—individualized relations dominate among tourism stakeholders operating in Goygol. The lack of coordination and the conflict of interests among cluster participants negatively affect both the quality of tourism services and the sector's competitiveness. It can be stated that the concept of “co-opetition,” which has gained prominence in recent years, is not accepted or applied among tourism actors in the region. Undoubtedly, this situation is one of the main obstacles preventing the region from reaching its rightful place as a tourism destination.

In addition, a study was conducted to identify the statistical factors influencing German tourists' choice of Goygol as a tourism destination, and a relevant methodology was developed. Specifically, a survey was conducted among tourists from Germany who had either visited or intended to visit the Republic of Azerbaijan.

The survey, conducted for the first time, was based on primary data collection. The target group was reached through tourism companies that send tourists from Germany to Azerbaijan, and subsequently, a snowball sampling method was used among those individuals. The survey questionnaire is included in the appendix. The first part of the 19-question survey focused on demographic information (such as age, gender, occupation, and travel frequency). The second part aimed to clarify participants' preferences when traveling as tourists. This section included questions about accommodation preferences, length of stay, types of tourism, factors influencing destination choice, travel-related activities, and specific questions about German heritage sites outside Germany and Goygol district in particular. The survey results were analyzed using the SPSS statistical software. It should be noted that although a total of 343 respondents began the survey, only 283 of them completed it. Among those who completed the survey, 157 respondents (51%) were male, and 116 respondents (49%) were female. Furthermore, based on responses to one of the multiple-choice questions, participants' ages were grouped into the following five categories:

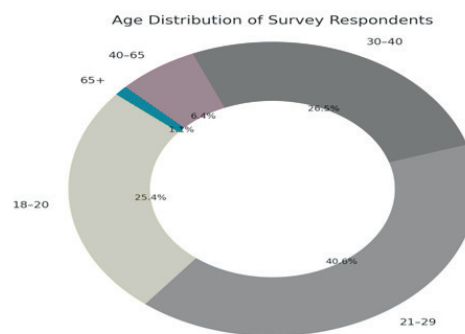


Figure 2. Age Distribution of Survey Respondents

Source: Prepared by the author based on the conducted research

At the same time, in response to the questions regarding employment status and travel frequency, 33.6% of respondents identified as full-time employees, 33.6% as unemployed (with students forming the majority), 16.3% as retirees, 13.4% as self-employed, and 3.2% selected the “other” category. The travel frequency of respondents over the past three years is illustrated in the following chart:

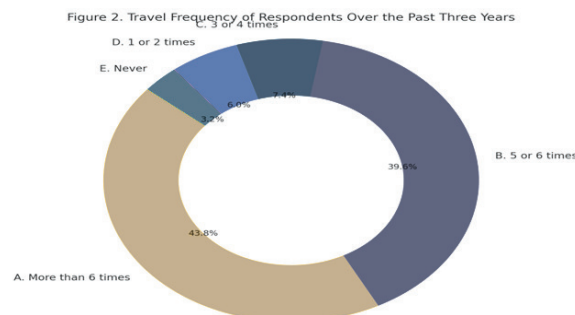


Figure 3. Results Reflecting Travel Frequency Over the Past Three Years

Source: Prepared by the author based on the conducted research

Upon reviewing the second part of the survey, the first factor examined was the tourists' choice of accommodation. The results show that 19.8% of respondents preferred four-star or higher-rated hotels, 50.2% opted for three-star or lower-category hotels, 20.8% chose to rent apartments, 5.7% preferred hostels, and 3.5% selected other types of accommodation. Furthermore, the respondents' length of stay at travel destinations over the past two years was as follows:

- 30% stayed for more than 15 days,
- 53.4% for 11–15 days,
- 7.4% for 7–10 days,
- 6.4% for 3–6 days
- 2.8% for fewer than 3 days.

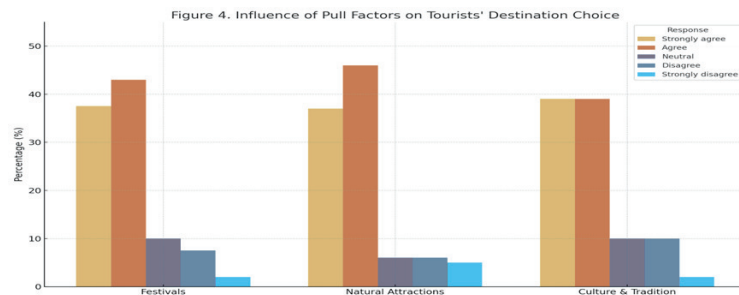


Figure 5. The Degree of Influence of Key Pull Factors on Destination Choice

Source: Prepared by the author based on the conducted research

The survey also examined the influence of existing pull factors at the tourism destination (such as festivals, nature, culture, and traditions) on the respondents' choice of location. The results are illustrated in the chart below:

Figure 4. Preferred Type of Tourism

Source: Prepared by the author based on the conducted research

In addition to the aforementioned factors, seven additional elements influencing the choice of tourism destination were assessed by survey participants in terms of their perceived importance: affordability (cost-effectiveness), quality of transportation, absence of language barriers, diversity of tourist activities, safety, quality of services, and accommodation standards.

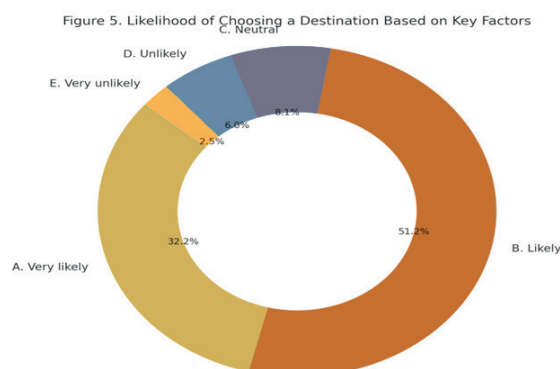


Figure 5. Likelihood of Traveling to the City of Goygol

Source: Prepared by the author based on the conducted research

As part of the conducted survey, a regression analysis was performed in order to identify the statistical factors influencing German tourists' decision to choose Goygol as a tourism destination. This analysis allows for the determination of relationships between independent and dependent variables, as well as whether these relationships are positive or negative. In the study, the variables were divided into two groups: seven independent variables and one dependent variable.

Independent Variables	Dependent Variable
Affordability (low cost) Likelihood of choosing Goygol as a destination Quality of transportation Absence of language barrier Availability of tourist activities Safety risks Quality of services Quality of accommodation	Likelihood of choosing Goygol as a destination

Table 3. Research Variables

Source: Prepared by the author based on the conducted research

The corresponding regression model is presented in the table below:

Model	Purpose
Linear Regression Model	Identification of statistical factors influencing German tourists' decision to choose Goygol as a tourism destination
$Y1 = a + b1Xc + b2Xd + b3Xe + b4Xf + b5Xg + b6Xh + b7Xi + u$	
Symbols and their explanation	
$Y1$ = Likelihood of choosing Goygol Xc = Affordability (low cost) Xd = Quality of transportation Xe = Absence of language barriers Xf = Tourist activities	Xg = Safety risks Xh = Quality of services Xi = Quality of accommodation a = Intercept b = Coefficients of the predictors u = Error term

Table 4. Regression Model

Source: Author (Researcher)

In regression analysis, three main statistical indicators are used. The first indicator is the adjusted R-squared coefficient. This coefficient measures how well the constructed model explains the variations in the dependent variable. In other words, it is one of the key indicators reflecting the extent to which the independent variables affect the dependent variable. It is also used to evaluate the overall statistical strength of the model. The second key indicator is the p-value. The p-value indicates whether there is a statistically significant relationship between an independent variable and the dependent variable. In this study, the significance threshold was set at 0.05.

That is, in order for the effect of an independent variable on the dependent variable to be considered statistically significant, its p-value must be less than 0.05. The third indicator consists of the coefficients of the independent variables. These coefficients help determine the direction (positive or negative) and the magnitude of the influence each independent variable exerts on the dependent variable.

Adjusted R-squared:	0.816		
Dependent Variable – Likelihood of Choosing Goygol			
		Coefficient	P-value
Affordability (low cost)		0.099	0.005
Quality of transportation		0.755	<.001
Absence of language barriers		0.098	0.014
Tourist activities		0.046	0.077
Safety risks		-0.028	0.41
Quality of services		0.048	0.117
Quality of accommodation		0.022	0.036

Table 5. Results of the Regression Model
Sorce: Author (Researcher)

Based on the table above, the multiple regression model was analyzed using three key statistical indicators. The first indicator is the adjusted R^2 coefficient, which in this case was 0.816. This result indicates that the model demonstrates a high level of effectiveness in explaining the relationship between the dependent and independent variables. Specifically, the value of 0.816 means that 81.6% of the variation in the likelihood of visiting Goygol (the dependent variable) can be explained by the independent variables included in the model (see Appendix 2). The second important indicator is the p-values of the independent variables. These values determine whether there is a statistically significant relationship between each independent variable and the dependent variable. The analysis revealed that four independent variables—affordability (low cost), quality of transportation, absence of language barriers, and quality of accommodation—have a statistically significant relationship with the likelihood of visiting Goygol. This indicates that these factors are significant statistical determinants of German tourists' decision to visit Goygol. The third indicator involves the coefficients of the independent variables. The results show that these coefficients are positive, indicating a positive relationship between the independent variables and the dependent variable. In other words, affordability, transportation quality, absence of language barriers, and quality accommodation are positively associated with the likelihood of visiting Goygol.

In summary, the findings suggest that low costs, high-quality transportation infrastructure, the absence of language barriers, and high-standard accommodation are the four main factors that positively and statistically significantly influence the decision of tourists to travel to Goygol.

Conclusion

This study highlights the critical role of specific statistical factors in shaping German tourists' destination preferences, particularly in the context of Goygol, Azerbaijan. The results of the regression analysis confirm that affordability, quality transportation, absence of language barriers, and accommodation standards are key determinants in the decision-making process. These findings underscore the need for targeted investment in tourism infrastructure and services that align with the expectations of international visitors.

Although Goygol boasts historical and natural advantages, the lack of cooperation among local tourism stakeholders and limited marketing outreach have hindered its full development as a tourism cluster. Future efforts should prioritize coordinated cluster development, multilingual service offerings, and improved accessibility. By addressing these areas, Goygol can transform into a competitive and sustainable tourism destination, appealing to both heritage-focused and eco-conscious German tourists.

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