



The Impact of Hosting the International Sporting Event – Mediterranean Games Oran 2022 – on Tourism in Algeria

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Abstract:

This study aims to assess the impact of hosting the international sporting event—the Mediterranean Games Oran 2022—on tourism in Algeria. The research was conducted on a sample of tourists and members of the Algerian community who experienced the event firsthand. Using a descriptive-analytical approach, data were collected and statistically analyzed to examine the effect of key event-related dimensions on tourism outcomes. The findings reveal a statistically significant impact at the 0.05 level for the dimensions of planning and organization on tourism development. In contrast, no statistically significant effect was found for the dimensions of physical evidence and infrastructure. Regarding income, the results indicate a statistically significant impact at the same level of significance (≤ 0.05), highlighting the economic benefits associated with hosting the event. These results underscore the importance of effective planning and management in maximizing the tourism and economic returns of international sporting events.

Key words: Sporting event, international, Games, Mediterranean, tourism

Jel Classification Codes : Z30, Z2, Z20, Z3

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1.Introduction

Tourism relies on a variety of sectors to diversify its forms, including the sports sector, particularly in its dimension related to **sports tourism**—a global and popular phenomenon shared by all nations, directly or indirectly. This form of tourism is based on the nature of the sporting event, the human resources involved, and especially the physical infrastructure developed to ensure the success of the event.

Organizing such events requires adherence to international standards within the framework of global competitions. Once a host country is selected, preparations begin for both physical and human infrastructure—such as hotels, transportation, and other facilities—to ensure optimal organization and accommodate the influx of visitors. These preparations fall under both **planning** and **organization**.

All these elements highlight the relationship between sports and tourism through two main aspects:

Travel and transportation, which are essential for attending events.

Accommodation and lodging, such as hotels, which are crucial for hosting athletes and spectators.

This interplay contributes to the emergence of **sports tourism**, which requires comprehensive preparation and well-equipped facilities to ensure a positive experience for athletes and tourists alike. The relationship between sporting events and tourism also extends to other sectors such as **commerce, transportation, and natural and human resources** (i.e., **infrastructure and physical evidence**), reflecting the impact of one variable on another.

Algeria is among the countries that hosted a major international sporting event—the **Mediterranean Games Oran 2022**. This event necessitated strategic planning, organizational programs, and the development of various investment projects across multiple sectors, including tourism, commerce, and transportation. It also led to the creation of direct and indirect job opportunities and stimulated commercial, touristic, and social activity (**income and revenue**).

1.1.Main Research Question

Based on the introductory context, the study seeks to answer the following central question:

What is the impact of organizing the international sporting event—the Mediterranean Games Oran 2022—on tourism in Algeria?

1.2.Research Hypotheses

The hypotheses tested in this study aim to clarify the relationship between the dependent and independent variables and the extent of their statistical significance, based on the following dimensions:

1.2.1.Main Hypothesis 1

There is a statistically significant impact of the Mediterranean Games Oran 2022 on the tourism sector in Algeria.

✓ Sub-HypothesisA:

There is a statistically significant impact of the **planning** dimension of the Mediterranean Games Oran 2022 on the tourism sector in Algeria.

- ✓ **Sub-HypothesisB:**
There is a statistically significant impact of the organization dimension of the Mediterranean Games Oran 2022 on the tourism sector in Algeria.
- ✓ **Sub-HypothesisC:**
There is a statistically significant impact of the physical evidence dimension of the Mediterranean Games Oran 2022 on the tourism sector in Algeria.
- ✓ **Sub-HypothesisD:**
There is a statistically significant impact of the infrastructure dimension of the Mediterranean Games Oran 2022 on the tourism sector in Algeria.

1.2.2.Main Hypothesis 2:

There is a statistically significant impact of **income** on tourism in Algeria.

1.3.Research Objectives

This study aims to achieve the following objectives:

- ✓ To identify the relationship between the international sporting event—the Mediterranean Games Oran 2022—and the tourism sector in Algeria.
- ✓ To analyze the impact of the study variables (planning, organization, physical evidence, infrastructure, and income) on tourism in Algeria.
- ✓ To assess the effect of organizing the Mediterranean Games Oran 2022 on the development and performance of the tourism sector in Algeria.

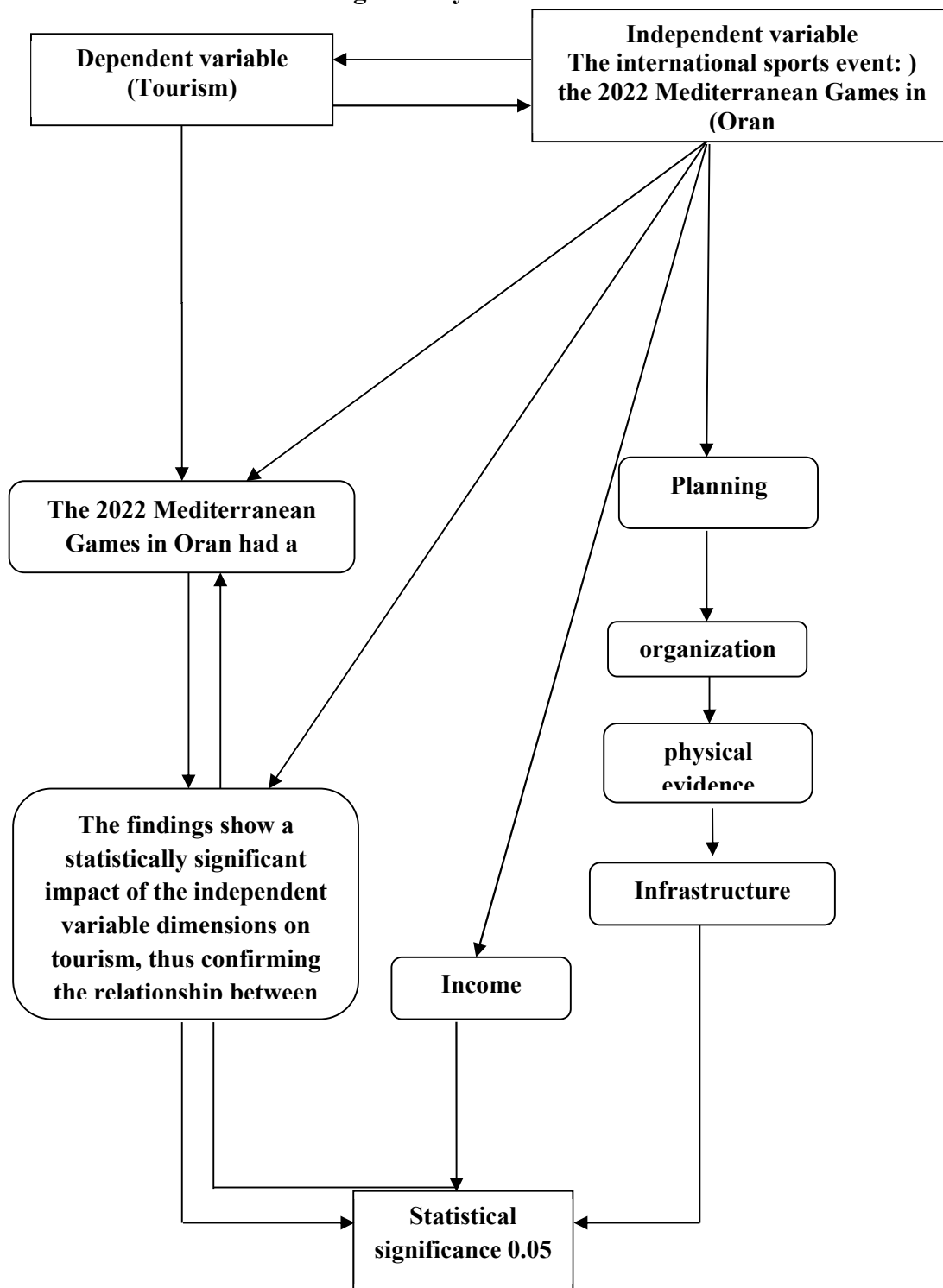
1.4.Research Methodology

1.4.1.Study Population and Sample

The study population includes all individuals involved in the Mediterranean Games Oran 2022, including organizers, athletes, and spectators, as well as those affected by the quality of tourism services during the event.

A total of **68 questionnaires** were distributed and all were returned and valid for statistical analysis, yielding a **100% response rate**. This high rate enhances the reliability and generalizability of the study's findings, allowing for more accurate conclusions regarding the relationship between international sporting event organization and tourism in Algeria.

Fig1: Study model



2. Theoretical Framework of Study Variables

This study analyzes the relationship between two variables: tourism and the international sporting event—the 2022 Mediterranean Games held in Oran. The relationship is examined through variables such as planning, organization, physical evidence and infrastructure, and income, as key indicators of this relationship.

2.1. International Sporting Event

An international sporting event is a human gathering held over a specific period in one or multiple locations to conduct a series of matches and competitions. These are organized by various sports entities—institutions, schools, federations, organizations, or individuals—competing under unified rules to determine winners and rankings (Mustafa, 2010, p. 39). It is characterized by a creative and complex content of recreational sport-like activities conducted according to a pre-defined program, generating tourism impacts and holding significant social and economic importance for the host location or region (Radovanovic, 2003, p. 260).

2.2. Mediterranean Games

The Mediterranean Games are multi-sport competitions held under the auspices of the International Committee of Mediterranean Games (ICMG) and recognized by the International Olympic Committee (IOC) (Khoudjia Houhou, 2020, p. 225). They have been organized every four years since 1951 among countries bordering the Mediterranean Sea (GAMES, 2019).

2.3. Tourism

Tourism is a social, cultural, and economic phenomenon involving the movement of people to countries or places outside their usual environment for personal, business, or professional purposes. These individuals are referred to as “visitors” (tourists, residents, or non-residents), and tourism is linked to their activities, some of which involve tourism expenditure. It fully considers current and future economic, social, and environmental impacts, meeting the needs of visitors, the industry, the environment, and host communities (Noroozi, 2020, p. 2).

3.4. Planning

Planning is the prior determination of what should be done, when, where, how, and by whom. It bridges the gap between the current state and the desired future, involving the selection of goals, policies, procedures, and programs from among alternatives. Planning is considered the fundamental function of management (Sarker, 2019, p. 2).

2.5. Organization

An organization is a structured social system established to achieve specific objectives (ManalBoumaraf, 2023, p. 753).

2.6. Physical Evidence

This includes the building and its facilities, staff appearance, personal hygiene, uniforms, promotional materials, and branding campaigns. These elements enhance the tangibility and measurability of the service (Makrassi Sana, 2024, p. 42).

2.7. Infrastructure

Infrastructure refers to physical structures—roads, airports, electricity networks, schools, and hospitals—that are essential for societal functioning and economic processes (Dhouifi Hamza, 2020, pp. 103-104).

2.8. Income

Income is the benchmark used to compare individuals and assess the impact of various policies and institutional forces. It represents the set of indicators used for benchmarking purposes (Brooks, 2017, pp. 3-4-53).

3 Study Methodology

3.1.. Population and Sample

The study population includes all organizers, athletes, and spectators involved in the sporting event, as well as those affected by tourism quality. A total of 68 questionnaires were distributed and fully returned, yielding a 100% response rate. This high response rate enhances the reliability

and generalizability of the study findings regarding the relationship between international sporting event organization and tourism in Algeria.

3.2.. Sample Characteristics

Table 1. Gender Distribution

Gender	Frequency	Percentage (%)
Male	45	66.2
Female	23	33.8
Total	68	100

Source: survey results(spss)

Table 2. Age Distribution

Age Group	Frequency	Percentage (%)
18–25 years	13	19.1
26–40 years	29	42.6
41 years and above	26	38.2
Total	68	100

Source: Survey Results(spss)

The dominant age group is 26–40 years, representing 42.6% of the sample, followed by those aged 41 and above.

Table 3. Educational Qualification

Education Level	Frequency	Percentage (%)
Below Secondary	10	14.7
Secondary	38	55.9
University	20	29.4
Total	68	100

Source: Survey Results(spss)

Table 4. Income Level

Income Level (DZD)	Frequency	Percentage (%)
< 20,000	4	5.9
20,000–40,000	29	42.6
40,000–60,000	18	26.5
> 60,000	17	25
Total	68	100

Source: Survey Results(spss)

4. Research Method and Tools

4.1.. Research Method: The study adopts a descriptive and analytical approach, suitable for economic sciences, aiming to identify common factors among the characteristics of the phenomenon under investigation.

4.2. Data Collection Tools and Reliability

Data were collected through direct surveys using observation and questionnaires. The questionnaire was designed to assess the dimensions of event organization and staff performance. Reliability was measured using Cronbach's Alpha, with a value of 0.669, indicating acceptable internal consistency.

5. Statistical Analysis Methods

5.1.Simple Frequency Tables: Used to describe the sample and their responses.

5.1.1. Survey Structure:

- Section 1: Demographic characteristics (nominal scale).
- Section 2: Event organization dimensions (13 Likert-scale items).
- Section 3: Relationship between event organization and tourism (10 Likert-scale items).

Table 5. Survey Items and Variables

Item Numbers	Variable	Dimension	Variable Type
01–03	Planning	Event Organization Dimensions	Variable 1
04–07	Organization		
08–10	Physical Evidence		
11–13	Infrastructure		
14–23	Tourism		Variable 2

Source: Survey Design(spss)

Table 6. Likert Scale

Scale	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Weighted Score	5	4	3	2	1

Source: Survey Design(spss)

5.2.Pearson Correlation: Used to measure the relationship between variables. A significance value < 0.05 indicates a statistically significant relationship.

5.2.1.Simple Linear Regression: Assesses the linear relationship between dependent and independent variables using the formula: $Y = \alpha X + \beta$

5.3.Mean Score Interpretation:

Table 7. Mean Score Interpretation

Mean Range	Likert Scale	Evaluation Level
1.00–1.80	Strongly Disagree	Very Low
1.81–2.60	Disagree	Low
2.61–3.40	Neutral	Moderate
3.41–4.20	Agree	High
4.21–5.00	Strongly Agree	Very High

Source: Survey Design(spss)

5.4.ANOVA One-Way: Used to test hypotheses regarding significant differences in responses based on personal variables.

6. Study Analysis, Hypothesis Testing, and Discussion of Results.

6.1. Study Analysis:

6.1.1. Measuring the Relative Importance of Study Variables: Before testing the study hypotheses, we review the relative importance of the study variables and dimensions from the perspective of the sample participants as follows.

6.1.2.Measuring the Relative Importance of Items Related to the Organization of the Mediterranean Games Oran 2022: To measure and rank the relative importance of the organizational items, the arithmetic mean and standard deviation were used. The item with the highest mean rank is considered the most important from the sample's perspective. The analysis is presented in the following table:

Table 8. Measurement and Ranking of the Relative Importance of Items Related to the Organization of the Mediterranean Games

Standard Deviation	Mean	Item	Rank
0.7214	4.4559	Q1x	1
0.88297	4.2353	Q4x	2
0.83071	4.2353	Q7x	3
0.75587	4.1029	Q5x	4
0.9099	4.0882	Q12x	5
0.781	4.0441	Q3x	6
0.75252	4.0294	Q8x	7
0.87898	3.9412	Q13x	8
0.78674	3.9118	Q2x	9
0.94539	3.8235	Q10x	10
1.02771	3.5588	Q11x	11
1.04371	3.5147	Q9x	12
1.08334	2.9265	Q6x	13
0.3303	3.94	Overall Mean	

Source: Survey Design(spss)

Before testing the study hypotheses, the relative importance of the study variables and dimensions is reviewed from the perspective of the sample participants as follows:

— Measuring the Relative Importance of Items Related to Tourism in Algeria:

To measure and rank the relative importance of tourism-related items, the arithmetic mean and standard deviation were used. The item with the highest mean rank is considered the most important from the sample's perspective. The analysis is presented in the following table:

Table 9. Measurement and Ranking of the Relative Importance of Items Related to Tourism in Algeria

Standard Deviation	Mean	Tourism Items	Rank
0.68263	4.3382	Q15y	1
0.73824	4.3088	Q14y	2
0.69236	4.2941	Q19y	3
0.83532	4.2500	Q23y	4
0.83860	4.2059	Q20y	5

0.92224	3.9853	Q22y	6
1.03495	3.9412	Q16y	7
0.94388	3.7794	Q17y	8
1.05625	3.7500	Q18y	9
1.13914	3.5294	Q21y	10
4.260	4.55	General Mean for Tourism	

Source: Survey Design(spss)

The table above shows that the highest relative importance score for tourism in Algeria was for the item: “The event played a key role in introducing neighboring countries to Algeria’s natural and human resources,” with a mean of 4.33 and a standard deviation of 0.68. This highlights Algeria’s scenic beauty, cultural heritage, historical sites, hospitality, and talent, potentially attracting tourists from neighboring countries who were previously unaware of Algeria’s offerings.

On the other hand, the item with the lowest relative importance was: “Investment opportunities in Oran and Algeria increased after the event,” with a mean of 3.52 and a standard deviation of 1.13. This suggests a limited perceived link between hosting the Mediterranean Games and increased investment opportunities, as long-term investment decisions depend on broader factors such as political stability, market conditions, regulatory frameworks, and economic policies.

Overall, most tourism-related items had mean scores above 3.52, indicating high relative importance. The general mean score for organizing the games was 4.55, reflecting significant perceived importance.

6.2. Hypothesis Testing

6.2.1. Main Hypothesis 1: “There is a statistically significant impact of the Mediterranean Games Oran 2022 on tourism in Algeria.”

6.2.1.1. F-Test and Regression Analysis

Table 10. Regression and F-Test Results for the Impact of the Games on Tourism

Source	Sum of Squares	Degrees of Freedom	Mean Squares	F Calculated	F Tabulated	Significance Level	R ²	Correlation Coefficient
Regression	2.057	1	2.057	16.349	/	/	0.72	0.00
Error	8.304	66	126	/	/	/	/	/
Total	10.361	67	/	/	/	/	/	/

Source: Survey Results(spss)

The F-value = 16.349 is statistically significant at $\alpha \leq 0.05$, indicating model reliability.

$R^2 = 0.72$, meaning 72% of the variance in tourism is explained by the organization of the games.

6.2.1.2 Multiple Linear Regression Model

Regression equation: $Y = 0.07 * \text{Planning} + 0.95 * \text{Organization}$
 $0.131 * \text{Tangible Evidence} + 0.121 * \text{Infrastructure} + 2.077$

6.2.1.3.Sub-Hypothesis A: “There is a statistically significant impact of the planning dimension of the Mediterranean Games Oran 2022 on tourism in Algeria.”

Table 11. Student's T-Test for Parameter Significance

T Calculated	T Tabulated	Significance
2.060		0.002

*Hypothesis accepted

Source: Survey Results(spss)

6.2.1.4.Sub-Hypothesis B: “There is a statistically significant impact of the organization dimension on tourism in Algeria.”

Table 12. Student's T-Test for Parameter Significance

T Calculated	T Tabulated	Significance
2.72		0.008

*Hypothesis accepted

Source: Survey Results(spss)

6.2.1.5.Sub-Hypothesis C: “There is a statistically significant impact of tangible evidence on tourism in Algeria.”

Table 13. Student's T-Test for Parameter Significance

T Calculated	T Tabulated	Significance
1.850		0.069

*Hypothesis rejected

Source: Survey Results(spss)

6.2.1.5.Sub-Hypothesis D: “There is a statistically significant impact of infrastructure on tourism in Algeria.”

Table 14. Student's T-Test for Parameter Significance

T Calculated	T Tabulated	Significance
1.413		0.162

*Hypothesis rejected

Source: Survey Results(spss)

6.2.2. Main Hypothesis 2: “There is a statistically significant impact of income level on tourism in Algeria at $\alpha \leq 0.05$.”

Table 15. One-Way ANOVA Results

Significance Level	F Value	Source of Variation	Dimension
0.015	2.171	Income	Organization of the Mediterranean Games Oran 2022
0.240	3.345		Tourism in Algeria

*Hypothesis partially accepted

Source: Survey Results(spss)

This suggests that income level influences perceptions and behaviors related to tourism, as individuals with higher income may have different preferences, expectations, and access to tourism activities compared to those with lower income.

The table above presents the results of the one-way ANOVA test conducted on the participants' responses regarding the study variable in relation to income. This test allows for the examination of the hypothesis stating that:

“There are statistically significant differences in the participants' responses regarding the study variables attributable to the income characteristic at a significance level of 0.05.”

The test yielded a significance level lower than the threshold adopted in the study (0.05), and therefore, the hypothesis is partially accepted. This is justified by the fact that income is often associated with an individual's purchasing power and financial resources. Participants with higher income levels may have different preferences, behaviors, and perceptions compared to those with lower income. Their financial capabilities enable them to engage in various tourism activities, choose different destinations, and hold distinct expectations and experiences regarding the tourism sector.

8. Discussion of Results

The findings revealed a statistically significant effect at a significance level of ≤ 0.05 for the planning and organizing dimensions on the tourism sector. However, no statistically significant effect was found for the physical evidence and infrastructure dimensions. This can be interpreted as follows:

- ✓ The significant statistical impact of the planning dimension indicates that strategic decisions and long-term considerations have a major influence on the tourism sector and contribute significantly to the success of international sporting events.
 - ✓ The absence of statistical significance for physical evidence and infrastructure suggests that respondents placed relatively less importance on these factors compared to planning and organizing. This may reflect differing priorities or perspectives regarding the relevance of physical and infrastructural elements. There are statistically significant differences in the participants' responses regarding the study variables attributable to income at the 0.05 significance level. This result is logical, as income level can influence lifestyle choices, including travel behavior. Individuals with higher income levels tend to have more opportunities for leisure travel, vacations, and exploration of tourist destinations. Their experiences, preferences, and expectations related to tourism may differ significantly from those with lower income. Their perception of what contributes significantly to the success of international sporting events and the subsequent impact on the tourism sector may also be influenced by other factors such as cultural aspects, social considerations, or personal experiences.
 - ✓ The social environment and atmosphere surrounding international sporting events can greatly affect the perception and enjoyment of participants and spectators. Factors such as hospitality, friendliness, safety, and inclusivity are essential in creating a positive environment for visitors.
 - ✓ The behavior and attitudes of local residents, community support and involvement, and the overall atmosphere of acceptance and celebration can contribute to the success of the event and leave a lasting impression on tourists. These social considerations can influence tourist satisfaction and their willingness to recommend the destination, thereby impacting the tourism sector. These factors go beyond physical evidence and infrastructure.
- Impact of the Mediterranean Games Oran 2022 on Tourism in Algeria
- There is a statistically significant impact of the Mediterranean Games Oran 2022 on the tourism sector in Algeria. Hosting the Mediterranean Games provided an excellent opportunity to showcase Algeria's natural, cultural, and historical landmarks. Media coverage and international attention surrounding the event served as a platform to promote the destination. The positive image projected during the games could attract potential tourists and raise awareness of Algeria as a desirable tourist destination.

9.Conclusion

The decision to host the Mediterranean Games Oran 2022 received a higher score in the planning dimension, as it represents a strategic move by the Algerian government. This decision may be viewed as a proactive step taken to enhance Algeria's reputation, attract international attention, and stimulate tourism growth.

Planning typically involves considerations such as bidding, financial planning, venue selection, and stakeholder engagement. The decision to host the Mediterranean Games reflects careful planning and foresight, contributing to the higher score in this dimension.

If there is strong interest in planning but not in organizing, it would appear contradictory, as organizing is a crucial part of planning and executing international events. Planning and organizing are closely interconnected and usually go hand in hand. Planning involves strategic decision-making, long-term considerations, and developing a framework for hosting the games, while organizing deals with the practical implementation, logistical coordination, and operational execution of the planned activities.

Therefore, both dimensions are essential for achieving successful outcomes. Effective planning must be accompanied by effective organizing to ensure smooth execution of the games and maximize their impact on the tourism sector. Planning provides a roadmap and strategic framework for achieving goals and objectives; however, without effective organizing, plans remain theoretical and cannot be implemented.

The highest relative score in the tourism scale in Algeria was for the statement:

“The event played an important role in introducing neighboring countries to Algeria's natural and human resources.”

International sporting events offer a platform for cultural exchange, allowing Algeria to showcase its unique cultural heritage, traditions, and customs to neighboring countries. This generates interest and curiosity among visitors, leading to increased tourist flows and exposure to Algeria's cultural offerings.

Maintaining comprehensive strategic planning for international events, aligned with practical organizational efforts, is essential for effective execution. Major sporting and cultural events offer opportunities to showcase Algeria's natural and cultural resources, enhance tourism, and promote cultural and diplomatic exchange, thereby strengthening the country's international image. Furthermore, sustainable investment in infrastructure and systematic impact assessments ensure that these events deliver long-term benefits to both the community and the tourism sector.

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