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Globalization and Tourism Openness as a Gateway to Economic Diversification in Algeria: An Analytical Applied Study for the Period 2005-2020

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Abstract

Background: Globalization and tourism openness a promising field that can help Algeria diversify its economy beyond oil and gas. By showcasing its rich culture and beautiful landscapes, Algeria can attract more international visitors, boosting income and job creation. While there are challenges like security and infrastructure, focusing on eco-tourism and partnering with global tourism players offers great potential for economic growth and stability.

Objectives: The following study aims to underscore the imperative and significance of uplifting the tourism sector and its influence on the growth of tourism revenues in Algeria, particularly following the adoption of the Tourism Guidance Plan.

Methods: The study endeavors to gauge the impact of tourism openness on the upsurge in tourism revenues in Algeria by examining common integration for revealing long-term relationships and applying the Granger causality test to elucidate short-term relationships between the study variables.

Results: The study confirms the absence of both long-term and short-term relationships between the study variables, indicating the country's lag in keeping pace with global developments that could enhance opportunities to capitalize on the relative advantages of the tourism sector.

Conclusions: Despite Algeria's potential to achieve effective and sustainable tourism development and qualify it to open up to the world, the current challenges stand in the way of achieving this goal. Based on the collected data, the study has proven no relationship between tourism openness and economic diversification in Algeria.

***Keywords**:* Tourism globalization, Tourism openness, Tourism revenues, Common integration test.

1. Introduction

In recent years, Algeria has strategically diversified its economy beyond the hydrocarbon sector, aligning itself with global economic trends that emphasize international exchange across key economic sectors. This strategic shift aims to strengthen the country's developmental capabilities. The country's abundant and diverse tourism potential can serve as a driving force for achieving growth, development, and enhancing overall economic indicators. This includes reducing unemployment rates, stimulating economic growth, and, most importantly, increasing hard currency tourism revenues.

To attain the envisioned goals, it is imperative to bolster and cultivate the competitive features of tourism in Algeria. These distinctive strengths and attributes enable investments in the sector to surpass their counterparts, granting tourism investments a competitive advantage in the market. A key strategy to achieve this is by fostering opportunities for tourism openness along with globalization of tourism and aligning with the demands of global tourism trends. Globalization is the growth of global companies that surpass borders and national boundaries. For others, it is closely related to the information revolution, the movement of funds, ideas, labor, and other modern technologies that have played a role in bringing the economies of the world closer together (Rugumamu, 2002, p. 23).

According to Mill (2000) foreign tourists are every person who visits a country, other than the country usually occupied for a period of approximately 24 hours. Foreign tourists are suppliers of foreign exchange reserves for the area they visit. The entry of foreign tourists will increase foreign exchange, which means that it will strengthen the balance of payments and trade. (Kamil, Pratama, & Arief, 2018, p. 227)

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The globalization of tourism contributes to the increasing movement of tourists, goods, and tourism services across national borders. It expands the scope of international relations in this sector, driven by the impacts of technological advancements and communications on the industry. Social media and the internet, in particular, now play a significant role in facilitating the flow of information and tourism bookings.

As the globalization of tourism brings about a transformation in how travel and tourism are organized and marketed, demanding a rapid and sustainable response to the challenges and opportunities it presents, we raise the following pivotal question

2. Objectives

This study aims to clarify the extent of the contribution of the Algerian tourism sector's openness in enhancing tourism revenues. It also seeks to outline the ways to uplift the sector both domestically and internationally, to serve as a catalyst for development and growth in the country, and examine the necessity of economic diversification in the context of shifting towards tourism as a strategic alternative.

This study is conducted to illuminate the prospects of tourism development through the globalization and openness of the tourism sector, with the goal of boosting foreign currency tourism revenues as a driver for growth. It is carried out against the backdrop of continuous contemplation of alternative development strategies to reduce dependence on an oil-based economy.

3. THEORETICAL FRAMEWORK

In a world characterized by constant transformations and changes, globalization has emerged as a pivotal stage in the development of the global capitalist system, exerting its influence across its various dimensions. Globalization has impacted and been impacted by this system, bringing both positive and negative aspects. It plays a substantial role in the evolution of tourism and its globalization, as it imposes mechanisms that align with its strategies to enhance its resilience, liberate its potential, and mitigate its challenges.

The term globalization, as defined by Thomas Larson and David Skidmore, refers to a process that deepens the principle of mutual dependence among actors in the global economy. This involves an increasing participation rate in international exchange and international economic relations for these actors, both in terms of level, size, and influence in various fields, with a particular emphasis on goods, services, and production elements. The growth of international trade becomes a significant proportion of the overall economic activity, giving rise to new forms of international economic relations in the global economy, where their role expands in comparison to economic activities at the local level (Abdul Hamid , 2005, p. 18).

The concept of globalization can be summarized in a statement by the Director-General of the World Trade Organization, who says: "Globalization is a reality, not a choice. It starts with us and our daily lives. In the morning, we wake up to a Japanese radio set up in Malaysia, have coffee from Colombia, drive a car made in France, but 50% of its parts come from various parts of the world. Then we head to the office where computers and all other devices are produced in most regions of the world. Globalization is a reality, not a choice" (Yahya , 1999, p. 20) .

The impact of globalization on tourism is evident through significant features that contribute to the development of the tourism sector. These features include advancements in technology, efficient transportation for travellers, open borders, and other factors such as the tremendous growth of the aviation industry. The reduced travel time to destinations allows tourists to spend more time at the actual tourism site. The opening of borders and free markets fosters increased interaction and cultural exchange between countries, leading to diversity and enhancement of the tourist experience. Globalization has opened up new possibilities for the development of tourism through the advancement of electronic technology, communications, and transportation. The internet, fast communications, and lower air travel costs have become increasingly important every day. The internet has drastically reduced costs by diminishing the significance of intermediaries or even excluding them altogether, becoming one of the most sought-after advantages in comfortable accommodation.

In general, a large number of writers agree that globalization has increased the interconnection between economies, countries, and individuals (Vukadinovic , Cervic , & Knezevic , 2015, p. 48).

This interconnection includes not only large companies but also small and medium-sized enterprises and family businesses. The process of globalization contributes to establishing and functioning a global tourism market that anticipates competition on an equal footing regardless of the country of origin.

According to Al-Sa'idi, the requirements for tourism globalization can be described as follows: (Al-Sa'idi, 2011, p. 117)

- Institutional and organizational framework: Stresses the significance of collaboration among government entities, mutual cooperation between institutions, and partnerships with both the private sector and civil society. By underscoring the benefits for each participant resulting from the activation of tourism globalization, fostering constructive dialogue between institutions becomes instrumental in establishing a favorable environment for the execution of globally-oriented tourism investment projects.
- The existence of a well-defined legal framework at both the international and local levels is essential. Many countries have included tourism services in their commitment schedules under the General Agreement on Trade in Services. This strategic inclusion aims at the gradual liberalization of the tourism sector to realize development objectives and attract foreign investments. Thus, the General Agreement on Trade in Services serves as the genuine starting point for identifying the legal prerequisites necessary to activate and enhance the tourism industry.
- Progress in Information Technology Infrastructure: These requirements focus on the status of existing technological infrastructure and strategies for its development and investment, especially in light of new trends in tourism. This involves the enhancement of fundamental communication and information technology infrastructure to facilitate broader access to internet services, both within the tourist-generating country and the countries targeted in tourism marketing initiatives.
- Encouraging the Emergence of E-Brokers in the Tourism Sector involves fostering the establishment of a network of parallel websites for all stakeholders in the tourism industry. This includes those in hospitality, airlines, travel agencies, tour guides, and other sectors. Collaboration with traditional intermediaries in the tourism field is essential, as both traditional and electronic brokers complement each other.
- Creating new patterns of institutions and entities dedicated to promoting tourism involves establishing organizations that operate based on globally recognized standards, utilizing online platforms. This allows them to compete effectively with other competitive tourism sites in different countries.
- Establishing a Minimum Threshold for E-Commerce Utilization in Various Transactions: it involves incorporating internet applications and e-commerce in areas related to electronic tourism. This includes ticket booking, air travel services, hotel accommodations, transportation services, car rentals, and tourist restaurants. This encompasses the use of online reservation systems, whether during air travel or the tourist's stay in hotels.
- The availability of a supportive cultural environment is crucial for facilitating the activation of tourism openness. It is essential to have a cultural environment that is conducive to such interactions, as it plays a significant role in advancing tourism globalization programs.

This necessitates the development of a new strategy for these traditional intermediaries, preparing them to engage in global tourism through training programs. These programs aim to raise awareness about the importance of understanding e-commerce, its connection to electronic tourism, and equip them with the necessary skills for this digital landscape.

4. TOURISM OPENNESS AND GLOBALIZATION IN ALGERIA

Algeria has consistently found itself at the bottom of global tourism rankings, according to reports from international tourism organizations. Chief among these reports is the one from the World Economic Forum, which repeatedly classifies Algeria as one of the least favourable tourist destinations. However, this assessment does not fully capture the true tourism potential that Algeria possesses.

Algeria has consistently been ranked at the bottom in reports issued by international tourism organizations, most notably in the World Economic Forum report. This report consistently asserts, through its repeated assessments, that Algeria is among the worst tourist destinations. However, this assessment does not fully reflect the tourism potential of Algeria. (Calderwood & Soshkin, 2019) The World Economic Forum's Global Competitiveness Report “Davos” for the year 2019 classified Algeria among the least competitive countries in the field of tourism within Africa. The report ranked Algeria 116th globally out of 140 countries included in the study. The Forum's assessments in the report highlighted that Algeria lags significantly behind in various aspects of competitiveness in the travel and tourism sector, positioning it as a non-attractive tourist destination.

Regarding the business climate, Algeria ranked 118th, indicating a significant deficiency in this aspect according to the International Organization's assessment. In terms of safety and security, Algeria secured the 53rd position, while it obtained the 76th position for health and cleanliness. Concerning human resources, Algeria is ranked 102nd, earning a score of 4 out of 7 points for the training and specialization of workers. Notably, in terms of price competitiveness, particularly in energy, Algeria holds the 8th position, receiving 6 out of 7 points. This does not fully reflect the country's potential and its natural and cultural resources. Algeria occupied the 126th position in terms of natural resources and the 51st position in terms of cultural resources. In the business travel climate, however, it ranks at 136, the last position. Regarding tourist services, it is placed at the bottom of the list, 136th. Furthermore, its ranking in technology readiness is 89, indicating a lack of readiness in the tourism sector for attracting visitors. Consequently, Algeria lags behind in the global, African, and even Arab contexts when it comes to tourism development. (soraya, 2018, p. 309)

The reality does not fully reflect the report of the World Tourism Organization, which categorizes the tourism sector in Algeria as one of the fundamental pillars for boosting the national economy and creating sustainable development, given the available potential and resources. This is especially evident after Algeria launched a program addressing regional statistical capabilities, committing to creating competitive tourism. (soraya, 2018, p. 309)

Based on the information provided, it is evident that despite the state's efforts to adopt developmental policies in the tourism sector, the desired objectives have not been realized. This has significant implications for the overall economy, as the decline in tourist demand is accompanied by a reduction in spending (in hard currency). This, in turn, affects revenues, leading to negative consequences for the balance of payments on one side and decreasing savings rates on the other. Consequently, it hampers investment rates, explaining the sector's limited ability to generate employment, create job opportunities, and enhance revenues.

The successful opening up of tourism in Algeria hinges on meeting several crucial requirements, including: (Erabti & Aimar, September 2021, p. 385)

- Implementing a comprehensive vision for sector planning and organization;
- Fostering a more conducive business environment;
- Addressing the urgent issue of tourism real estate;
- Streamlining administrative procedures while bolstering transparency and governance;
- Ensuring safety and minimizing risks;
- Creating an efficient banking system by expediting money transfer and currency exchange processes and providing sufficient financing;
- Improving human resource efficiency and the quality of tourism products;
- Expanding accommodation capacities;
- Developing additional tourism infrastructure;
- Enhancing the performance of tourism and travel agencies;
- Boosting the promotion and marketing of tourist products;
- Cultivating tourism culture and awareness;
- Facilitating cooperation and coordination among various tourism entities;
- Fostering sustainability within the tourism industry.

5. Methods

The data to be studied consists of annual data for the Algerian economy, including tourism openness rates from 2005 to 2020, as well as tourism revenue data for the same period in Algeria. These data are derived from the International Bank's statistics.

Research variables are independent and dependent:

Tourism Openness: represented by the symbol "OT" as an independent variable.

Tourism Revenues: denoted by the symbol "TR" as a dependent variable.

The analytical method used in this study is a quantitative technique that uses mathematical and statistical models that are classified in certain categories to facilitate analysis using the EViews program. While the analysis technique used is Cointegration model analysis techniques to highlight the nature of the long-term relationship between the independent variable and the dependent variable.

The test was preceded by testing the stability of the two-study series, and testing the suitability of the model to determine the nature of relationship between the two variables of the study and the most appropriate model by using the ADF test and Granger Causality test.

To determine the quality of the model, we relied on a set of tests to diagnose the residuals, such as the autocorrelation test between the values of residual series (LM Test), and the variance stability test. Then, the classic assumption test is normality test, and also hypothesis testing.

In this study uses the basic model of input and output. For the degree of Algerian tourism openness can be seen from the magnitude of the tourism openness rate, the sum of the tourism export value and tourism import value to gross domestic product, the more the large index number obtained means the tourism of Algeria is increasingly open.

This is as follows:

$$\textbf{Tourism Openness Rate} = ((Xt + Mt))/GDB*100$$

Where:

Xt Tourism export;

Mt Tourism import;

GDB Gross domestic product.

6. Results

The economic model under consideration establishes a quantitative relationship between tourism openness and tourism revenues, revealing a significant positive correlation, as it is showing in the following:

Table 1. The Linear Relationship between Study Variables

Dependent Variable: TR
Method: Least Squares
Date: 09/09/23 Time: 20:17
Sample: 2005 2020
Included observations: 15

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	43.04056	57.60559	0.747159	0.4683
OP	533.5845	115.3651	4.625181	0.0005

R-squared	0.622008	Mean dependent var	292.0467
Adjusted R-squared	0.592932	S.D. dependent var	124.4012
S.E. of regression	79.37030	Akaike info criterion	11.70969
Sum squared resid	81895.38	Schwarz criterion	11.80410
Log likelihood	-85.82269	Hannan-Quinn criter.	11.70869
F-statistic	21.39230	Durbin-Watson stat	1.435881
Prob(F-statistic)	0.000475		

The estimated coefficient (B) is identified as 533.58, signifying a robust positive impact. This coefficient indicates that variations in tourism openness rates have a favorable effect on tourism revenues. Precisely, a 1% increase in tourism openness corresponds to a substantial increase of 533.58 in tourism revenues.
Additionally, the constant value (a), estimated at 43.04, represents the baseline for tourism revenues in the absence of any tourism openness. Hence, it serves as a benchmark, showcasing the inherent value of tourism revenues in a scenario devoid of tourism openness.
Mathematical relationship is obtained as follows:

$$\boldsymbol{TR = 43.0405633803 + 533.584507042 * OP}$$

The primary indicator for assessing the model's validity is the coefficient of determination (R-squared), which stands at 0.62. This coefficient signifies the strength of the actual versus predicted relationship. Given its proximity to 1, it indicates that tourism openness rates elucidate and account for a substantial proportion of the variations in tourism revenues. The residual percentage, then, arises from the influence of other unaccounted variables.
To test the validity of the Model in Representing the Relationship between Variables, there are two Hypotheses:

- Null Hypothesis (H0): The model is not suitable.
- Alternative Hypothesis (H1): The model is suitable.

Referring to the regression results, specifically the Fisher statistic, we find it to be significant at the 1%, 5%, and 10% levels. This is indicated by the calculated F-value being lower than the tabular F-value, leading us to accept the alternative hypothesis that the model is appropriate.
There is another test can be conducted to examine the significant impact of tourism openness on tourism revenues. With the following Hypotheses:

- Null Hypothesis (H0): Tourism openness rates have no significant effect.
- Alternative Hypothesis (H1): Tourism openness rates have a significant effect.

According to the model estimation table, particularly the Student's t-statistic, it is observed that the calculated t-value is greater than the tabular t-value. This implies that we accept the alternative hypothesis, indicating that tourism openness rates have a statistically significant impact on tourism revenues. In other words, the tourism openness rates in Algeria are shown to explain the variations occurring in tourism revenues.

Table 2. Testing the Stability of OP and TR Series at the Level

ADF test	At the level	The p-value
OP Series	Existence of Break Existence of Break and Trend Absence of Break and Trend	0.99 0.95 0.01
TR Series	Existence of Break Existence of Break and Trend Absence of Break and Trend	0.89 0.47 0.07

It is noticeable that the majority of critical values exceed 5% for most model tests. Therefore, we accept the null hypothesis (H0). Thus, the two series are found to be unstable at the given level.

Table 3. Stability Test for OP and TR Series at the First Difference

ADF test	At the First Difference	The p-value
OP Series	Existence of Break Existence of Break and Trend Absence of Break and Trend	0.0009 0.005 0.03
TR Series	Existence of Break Existence of Break and Trend Absence of Break and Trend	0.000 0.002 0.000

It is noteworthy that the majority of critical values are less than 5% for most model tests. Hence, we accept the alternative hypothesis (H1), thus, both series are stable at the first difference.
Given that both series exhibit stability at the first difference of the same order, there is a potential for a cointegrating relationship. To confirm this, it is necessary to perform a test for the stability of the residual series.

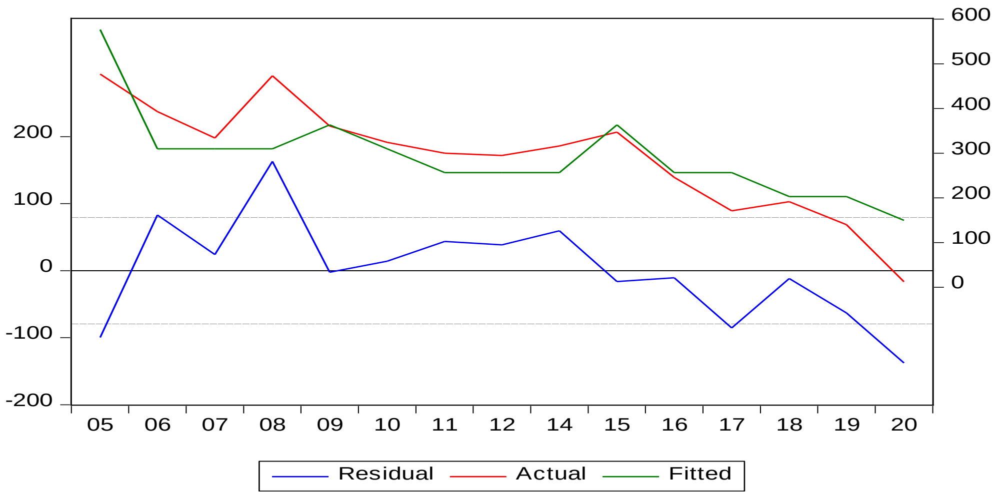

Fig. 1. Residual Series Visualization

The visual representation in the figure clearly indicates the lack of stability in the residual series at the level. This observation will be further validated through a formal test for the stability of the residual series at the level.

Table 4. Residual Series Stability Test at the Level

ADF test	At the First Difference	The p-value
Residual Series	Existence of Break	0.98
	Existence of Break and Trend	0.47
	Absence of Break and Trend	0.009

It is observed that the majority of critical values exceed 5% for most model tests. Consequently, we accept the null hypothesis (H0), indicating no significant effects. Additionally, the series is unstable at the level. Given that the residual series is also unstable at the level, it suggests the absence of a long-term relationship between the study variables.
The absence of a stable long-term equilibrium relationship between the rates of tourism openness and tourism revenues during the period (2005-2021) does not necessarily imply a complete lack of connection between them. Moreover, it does not mean that there is no relationship at all; rather, it could suggest a weak association that requires more precise data for validation. Therefore, a short-term causality test has been adopted.
Upon revealing the short-term relationship between the study variables, the next step will be to determine the direction of the causal relationship. The Granger causality test is one of the short-term tests. After identifying the short-term relationship between the variables, we will determine the direction of the causal relationship, considering an optimal time gap (lag: 1=2).
The results can be presented through the following null hypotheses:

- H0: Tourism openness rates do not cause an increase in tourism revenues.
- H0: Tourism revenues do not cause tourism openness.

We accept the null hypothesis if the p-value corresponding to the Fisher statistic is greater than 5%.

Table 5. Granger Causality Test

Pairwise Granger Causality Tests

Date: 09/03/23 Time: 21:04

Sample: 2005 2020

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.

OP does not Granger Cause TR	11	0.20546	0.8198
TR does not Granger Cause OP		15.0468	0.0046

Since the p-value for the Fisher statistic is greater than 5% in the first relationship, we conclude that there is no causal relationship from tourism openness rates towards tourism revenues. However, there is a causal relationship from tourism revenues towards tourism openness rates during the analyzed period.

Based on the previous tests, it is evident that there is no long-term relationship, but a short-term relationship exists between tourism revenues and the direction of tourism openness rates. This suggests that an increase in tourism revenues contributes to expanding the investment base in the country, thereby boosting opportunities for tourism openness and leveraging its positive aspects.

Table 6. Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.979150	Prob. F (2,11)	0.4061
Obs*R-squared	2.266847	Prob. Chi-Square (2)	0.3219

Test Equation:

Dependent Variable: RESID

From the results of the LM test table, it is observed that the p-values for the F-statistic and LM statistic are greater than the 5% significance level. Therefore, we accept the null hypothesis, meaning that the residual series values do not exhibit autocorrelation.

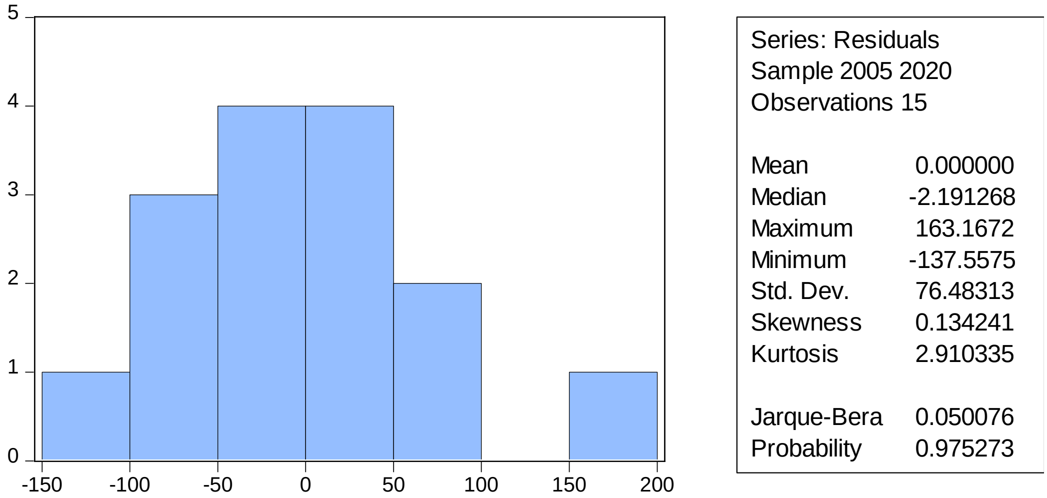

Fig. 2. Normal Distribution Test for Residual Series Values

Based on the data from the normal distribution test, it is evident that the p-value is greater than 5%. Additionally, the calculated values are less than the tabulated values, meaning that the residual series follows a normal distribution.

Table 7. Heteroskedasticity Test (ARCH)

Heteroskedasticity Test : ARCH

F-statistic	0.501719	Prob. F (1,11)	0.4935
Obs*R-squared	0.567075	Prob. Chi-Square (1)	0.4514

Test Equation :

According to the test results, it is noticeable that the p-values for the F-statistic and ARCH are greater than the 5% significance level. Therefore, we accept the null hypothesis, meaning that the residual series values do not suffer from heteroskedasticity instability.

7. Discussion

The presented research results indicate that Algeria's approach to the tourism sector, through tourism openness as a developmental and diversification alternative beyond the hydrocarbons sector, falls short of the appropriate level and suitability for Algeria's tourism potential. This leads us to question the validity of the study's hypotheses, as there seems to be no correlation between tourism openness rates and tourism revenues in Algeria.

The study confirmed the instability of the variable series at a 5% significance level, as it exceeded the required level. However, it remained stable at the first difference. This suggests the possibility of a long-term relationship between tourism openness rates and tourism revenues.

The study also confirmed the instability of the residual series, indicating the absence of a long-term relationship between the study variables at a 5% significance level. Consequently, we reject the validity of the first hypothesis, which assumes the existence of a long-term relationship between tourism openness and tourism revenues. In addition to the above, the results demonstrated the absence of a short-term relationship between tourism openness and tourism revenues at a 5% significance level. However, there is a relationship from tourism revenues to tourism openness, leading us to reject the validity of the second hypothesis.

It is worth pointing out the validation of the model's quality, as it is free from issues like autocorrelation and heteroscedasticity. Moreover, it adheres to a normal distribution.

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