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MODELLING INTERNATIONAL TOURISM, BASED ON ARRIVALS IN FIVE SELECTED MEDITERRANEAN COUNTRIES

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Abstract

The COVID-19 pandemic, which broke out in 2019, led to strict travel restrictions worldwide, significantly affecting international tourism. Countries such as Egypt, Morocco, Albania, Tunisia, and Slovenia experienced a sharp decline in tourist arrivals, between 2019 and 2021. This study explored the relationship between international tourism arrivals and various economic factors, including total expenditure, exports, passenger transport services, CO_2 emissions, and infrastructure, in these five Mediterranean nations, from 1995 to 2023.

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The study employed the Johansen Cointegration Test, Vector Error Correction Model and Wald Test, to evaluate both short- and long-term dynamics among these variables. Data for this research were collected from sources like the OECD, World Bank, IMF and DataStream. The findings revealed that passenger transport and CO_2 emissions reported both short- and long-term equilibrium relationships with tourism. Meanwhile, exports maintained a long-term equilibrium with tourism while infrastructure recorded only a short-term relationship.

Keywords: *International Tourism, Total Expenditure, Export, Passenger Transport Items, CO_2 Emission, Infrastructure*

JEL Code : *E31, E24*

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1. Introduction

Tourism is a crucial economic sector, that not only stimulates foreign exchange earnings but also serves as a key engine of economic growth, particularly in developing and transition economies **(Kim et al., 2015)**. The sector's contribution extends well beyond leisure and cultural exchange and it plays a strategic role in enhancing national income, increasing tax revenues and promoting regional development. As globalization and digital connectivity continue to expand, tourism has become more accessible, thereby amplifying its economic footprint on a global scale. One of the most widely used indicators for evaluating a country's tourism performance is the number of international tourist arrivals. This metric serves as a benchmark for assessing tourism flow, revealing important patterns in foreign travel behavior and destination preferences. A sustained increase in tourist arrivals often correlates with improved destination image, policy effectiveness, and overall competitiveness in the global tourism market. Further, international tourism fosters cross-border economic interactions, that contribute to a country's integration into the global economy.

Beyond the influx of foreign currency, tourism exerts a multidimensional influence on various sectors of the economy. It creates direct employment in industries such as hospitality, transport and recreation while also supporting indirect job opportunities in supply chains, construction and agriculture. Additionally, tourism plays a role in boosting domestic consumption and stimulating investment in public infrastructure such as airports, highways, sanitation systems and communication networks, all of which are essential for supporting long-term tourism development **(Widz and Wojcik, 2020)**. Despite these economic benefits, the tourism industry faces notable challenges of which capital required to develop and maintain tourism infrastructure, remains the primary challenge. The sector is inherently sensitive to fluctuations in investment and the financial risks associated with large-scale tourism projects, can deter both public and private stakeholders. Moreover, economic factors such as inflation, exchange rate volatility and political instability, can negatively affect investor confidence and in turn, impact tourism growth.

Infrastructure quality, trade openness and other economic conditions also serve as determining factors for tourism development. Well-developed transportation systems, reliable utilities and effective public services are essential for attracting and retaining international visitors **(Selimi, Sadiku, & Sadiku, 2017)**. Therefore, a country's ability to support and scale tourism

activities is often tied to its broader economic health and governance capacity. This study centres on five Mediterranean countries that, while sharing similar natural attractions, cultural assets, and tourism-based economies, differ significantly in terms of economic structure, policy environments and development levels. By comparing these nations, the study aims to uncover how variations in economic conditions influence tourism performance, with a particular focus on the balance between tourism potential and economic limitations **(Ren et al., 2019)**. Understanding these dynamics is essential for designing informed and effective tourism policies, tailored to suit different economic contexts.

2. Review of Literature

Tourism has historically been viewed as a means of cultural exchange and economic expansion. **Britton (1991)** described tourism as a leisure experience, that reflects existing power structures and ideologies, positioning tourists as passive consumers of suggested attractions **(Mura & Wijesinghe, 2021)**. Leiper emphasized that tourism consists of a structured body of knowledge that supports research, learning and teaching in a theoretical framework **(Rangus & Brumen, 2016)**. **Butler (1980)** introduced the theory of tourism development, suggesting that tourism follows a cyclical pattern. These theories highlight that tourism markets evolve due to shifting tourist motivations rather than purely economic, social, or physical factors **(Streimikiene, 2015)**. Tourism involves human travel for various purposes, including trade, education, religion, and leisure. It is characterized by temporary visits, that exclude work-related travel. Additionally, tourism facilitates cultural exchange, allowing for the transmission of traditions, customs and mutual understanding among different populations. According to the United Nations World Tourism Organization (UNWTO), international tourism involves individuals traveling beyond their permanent place of residence for leisure, business or other non-work-related activities, provided their stay does not exceed 12 months. The tourism industry encompasses all socioeconomic activities associated with providing goods and services to tourists. Over time, international tourism has become a key factor in global economic growth, increasing a country's competitiveness and improving population welfare. Various elements influence international tourism, including political, ecological, social, economic and demographic factors, that shape both the origin and destination countries **(Dogru, Bulut, and Sirakaya-Turk, 2017)**.

Usmani (2019) analyzed the impact of tourism arrivals and tourist spending on economic growth, in four developing countries like Brazil, Russia, India and China, using annual data from 1995 to 2016. By employing the Dumitrescu-Hurlin causality model and panel data techniques, the study demonstrated that tourist spending positively influenced international tourism arrivals and economic expansion. Further, the findings revealed long-run elasticity between tourism arrivals and tourism expenditure. A study by, **Akbulaev and Mirzayeva (2020),** explored the connection between international tourism and trade in Azerbaijan, from 1995 to 2018, through statistical analysis. The results confirmed strong correlation between tourism revenue and export performance, both in the short and long term. The study found that 73.6% of fluctuations in tourism revenue were influenced by changes in exports. Additionally, one percent increase in tourism income resulted in a 0.57% rise in the export of goods to other industries and a 0.59% improvement in the foreign trade balance. These findings supported the assumption that

international tourism did play a significant role in boosting foreign trade. **Li et al. (2019)** examined the effect of tourism investment on energy efficiency, within the transportation and residential sectors, in OECD economies, using data from 1995 to 2012. Applying the ARDL model, the study established a strong long-term relationship between tourism investment and energy efficiency, particularly in the transportation and residential sectors. The results demonstrated that higher tourism investment could lead to improved energy efficiency, across multiple industries. However, in the short term, no significant relationship was observed due to the negative environmental impact of tourism development, including increased pollution and resource depletion. A study by **Zikirya, Wang, and Zhou (2021),** analyzed panel data from 30 Chinese provinces, between 2010 and 2017. The research followed a five-step process, including unit root testing, cointegration testing and variance decomposition, among others. The study revealed that CO_2 emissions, air pollution, and tourism flows (both domestic and international) were in equilibrium over the long run. The findings indicated a significant relationship between tourism and CO_2 emissions, with higher pollution levels deterring foreign tourists more than domestic travellers. **Mamirkulova, Jianing Mi** and **Jaffar Abbas (2020)** conducted a study in Kazakhstan in 2021, to assess how the development of New Silk Road tourism infrastructure impacted local perceptions of sustainable tourism. Using regression analysis through SPSS, the study found a strong positive link between infrastructure improvements and overall quality of life. The research also highlighted that infrastructure development created job opportunities and skill training programs, increasing local involvement in tourism. Consequently, communities became more engaged in promoting sustainable tourism initiatives, ultimately enhancing residents' well-being.

3. Statement of the Problem

As shown in **Figure-1**, Egypt continues to rank among the top travel destinations within the Mediterranean region. Its wealth of historical landmarks and cultural sites, has traditionally been a magnet for international visitors. However, the outbreak of political turmoil, beginning in 2011, significantly undermined its tourism industry. The prolonged period of civil unrest and instability reduced tourist confidence and led to sharp decline in visitor numbers and tourism revenue **(Dahir, 2021)**. In contrast, Albania experienced a gradual increase in the number of tourists over the past decade. Despite this upward trend, the country still recorded lower tourist volumes when compared to more established Mediterranean destinations. This discrepancy may stem from limited infrastructure, weaker international promotion or lingering perceptions from its past isolation **(Pulaj, 2022)**. Although tourism in Albania is expanding, it has yet to achieve the visibility and volume seen in neighboring states.

Morocco, meanwhile, faced environmental pressures that posed risks to its tourism industry. These growing challenges were due to climate change, particularly water scarcity, which also impacted agricultural productivity. In response to ongoing drought conditions, the Moroccan government introduced regulations to curb water usage, which hindered tourism facilities such as hotels, resorts, and recreational parks, that relied heavily on water resources **(Tekken & Kropp, 2015)**. Tunisia, once widely regarded as a stable and secure holiday destination, was severely affected by incidents of terrorism, including attacks aimed specifically at international tourists. These events tarnished the country's image and raised global security

concerns, leading to a reduction in foreign arrivals and disrupting the stability of its tourism sector **(Essouaid & Rejeb, 2017)**.

Slovenia, despite its favorable location along the Mediterranean arc, remains relatively undeveloped in terms of global tourism appeal. Though it boasts natural beauty and alpine attractions, the country faced new obstacles due to environmental shifts. Unpredictable snowfall and warming temperatures directly impacted the viability of winter tourism, a major revenue generator for alpine destinations **(Garrity, 2022; Gosar & Cigalel, 2015)**. On a broader economic scale, a downturn in tourism could result in serious financial repercussions for countries where the tourism sector plays a central role in driving GDP and employment. A decline in visitor numbers resulted in lost revenue, increased borrowing to cover fiscal deficits and potential stagnation of economic growth **(Ferretti, 2021)**. Further, reduced tourism activity often caused layoffs across industries such as airlines, accommodation and tour operations. As a result, governments are frequently compelled to increase expenditure on social support and unemployment benefits to address rising joblessness **(Behsudi, 2020)**.

4. Need of the Study

This study provides updated data from 1995 to 2023, offering a more comprehensive analysis than previous research by **Ren et al. (2019)**. It examined how tourism-related factors could influence economic growth and sustainability. The study aims to help governments and investors, to understand current trends in international tourism, identify challenges and develop strategies to enhance the sector's performance. Additionally, the research highlights the environmental impact of tourism, particularly on the rise in CO_2 emissions and its consequences on global temperatures.

5. Objective of the Study

The study aims to analyze the short- and long-run relationships between international tourism arrivals and economic variables, such as total expenditure, exports, passenger transport, CO_2 emissions and infrastructure, in the selected Mediterranean countries.

6. Hypotheses of the Study

H_1: There is no short-run or long-run equilibrium relationship between international tourism arrivals and all dependent variables.

H_2: Total expenditure, exports, passenger transport, CO_2 emissions and infrastructure do not have significant short-run or long-run equilibrium relationships with international tourism arrivals, in the selected Mediterranean countries.

7. Research Methodology

7.1 Sample Selection

All data used in this study, were taken from secondary sources. This study has gathered data on economic variables of international tourism like total expenditure, export, passenger transport items, CO_2 emission and infrastructure, in five selected Mediterranean countries such as Egypt, Morocco, Albania, Tunisia and Slovenia.

7.2 Sources of Data

Data on all economic variables, were collected from sites such as OECD Data (https://www.oecd.org/en/data.html), World Bank (https://data.worldbank.org/), IMF Data (https://www.imf.org/en/Data) and DataStream (https://www.lseg.com/en/data). Besides, sources like books, newspapers, journals, and internet, that were relevant to the research area, were also used.

7.3 Period of Study

The data, employed in this study, consisted of panel data, covering the period from 1995 to 2023.

7.4 Tools used in the Study

This study used EViews (Econometric Views), to examine quantitative standards between socioeconomic relations and economic activities. Johansen Cointegration Test, Vector Error Correction Model and Wald Test, were used as a modelling technique in this study. It was used to examine the relationship between variables over different time periods. It was particularly useful for analyzing both short-run and long-run relationships between dependent and independent variables, even when the data had attained non-stationary property. The estimated economic model, developed in this study, as was follows:

$$TOUt = \beta_0 + \beta_1 TEt + \beta_2 EXt + B_3 PTt + B_4 CO_2 t + B_5 INFt + \mu$$

This study used dependent and independent variable such as:

TOUt = International Tourism Based on Number of Arrivals in Five Selected Mediterranean Countries

TEt = Total Expenditure

EXt = Export

PTt = Passenger Transport Items

CO_2t = CO_2 Emission

INFt = Infrastructure

8. Data Analysis and Interpretation Regarding Modelling International Tourism Based on Arrivals in Five Selected Mediterranean Countries

To examine stationarity, this study applied the Levin, Lin, Chin (LLC) and Im, Pesaran, Shin (IPS) tests. The results indicated that both methods produced non-stationary data, at 1%, 5%, and 10% significance levels. Given this non-stationarity, the long-term relationship between the variables was evaluated, using the Johansen Cointegration Test (**Table 1**) and the Vector Error Correction Model (VECM) (**Table 2**), while the short-run relationship was analyzed, using the Wald Test (**Table 3**).

The Johansen Test assessed whether a cointegration equation existed among the variables. The null hypothesis assumed no cointegration, whereas the alternative hypothesis suggested the presence of cointegration. The test results led to the rejection of the null hypothesis since the p-values, for both the trace test and max-eigen test, were less than the 5% significance level. This confirmed the probability of cointegration, among all five variables, which exceeded 14.49%.

The VECM analysis revealed that passenger transport had reported negative coefficient of -0.0903, with a p-value of 0.0230, which was less than the 5% significance level. In other words, there was statistically significant relationship between passenger transport and tourism. The negative coefficient implied an inverse relationship between the two variables. Similarly, total expenditure had recorded negative coefficient of -0.1025, with a p-value of 0.0672, which was above the 5% significance level, indicating that this relationship was statistically insignificant. The coefficient for CO_2 emissions was -0.13311, with a p-value of 0.0000, confirming a statistically significant relationship between CO_2 emissions and tourism. The negative coefficient revealed that as CO_2 emissions increased, tourism activity declined. Additionally, exports had reported negative coefficient of -0.0369, with a p-value of 0.0125, signifying a significant long-term relationship between exports and tourism. In contrast, infrastructure had recorded coefficient of -0.0983 and a p-value of 0.2524, indicating that its relationship with tourism was statistically insignificant.

The Wald Test was employed to examine short-run relationships. The p-values for total expenditure (0.2676) and exports (0.1030) exceeded the 5% significance level, meaning that the null hypothesis could not be rejected. In other words, there was no short-run causality between these variables and international tourism arrivals. Conversely, passenger transport, CO_2 emissions and infrastructure had reported p-values, less than 0.05, indicating statistically significant short-run relationships with international tourism. Thus, the results supported the presence of short-run causality for these three variables. The findings also concurred with previous studies. For instance, **Ghalehkhondabi et al. (2017)** analyzed the relationship between tourism demand and passenger transport in Catalonia, Singapore, and New Zealand from 2007 to 2017 and concluded that passenger transport significantly influenced tourism, in both the short and long run. Similarly, the current study found a strong correlation between CO_2 emissions and international tourist, arrivals, in both time frames. Regarding exports, the study revealed a statistically significant relationship with international tourism in both short and long-run contexts, consistent with previous research by **Chaisumpunsakul and Pholphirul (2018)** and **Akbulaev and Mirzayeva (2020)**. Their studies demonstrated that increased trade openness led to higher international tourist arrivals. Likewise, they established that revenues from international tourism were significantly influenced by fluctuations in exports. The relationship between infrastructure and international tourism showed a significantly negative correlation in the long run. This contradicted the findings of **Mandić, Mrnjavac, and Kordić (2018)**, who found no relationship between tourism infrastructure and tourism growth in Croatia. Similarly, **Ogechi Adeola (2019)** suggested that tourism infrastructure positively correlated with international tourism growth, a conclusion that differed from the current study's findings. Further, **Wamboyea et al. (2020)** argued that rapid infrastructure expansion had exerted beneficial effect on tourism in the long run. However, **Nguyen (2021)** reported no significant impact of infrastructure on attracting international tourists to Vietnam.

9. Findings of the Study

The outcomes derived from both the Vector Error Correction Model (VECM) and the Wald Test, yielded comprehensive insights into the dynamic interactions between international tourism and selected economic and environmental variables. Specifically, the analysis revealed that passenger transport and CO_2 emissions reported statistically significant relationships with tourism, in both the long and short term. This dual causality implied that fluctuations in transportation infrastructure and environmental quality directly influenced tourist arrivals not only over time but also in immediate, short-term contexts. The VECM demonstrated that passenger transport reported negative long-run coefficient, suggesting an inverse correlation with tourism activity, possibly due to inefficiencies, overcrowding or environmental degradation linked to transport systems. Similarly, the negative and statistically significant relationship between CO_2 emissions and tourism, indicated that worsening environmental conditions, particularly those associated with greenhouse gas emissions, may deter international visitors, reflecting increased awareness and sensitivity to environmental sustainability.

In the case of exports, the model established the existence of a long-run equilibrium relationship with tourism. This association may stem from the broader

economic integration and trade openness, which often create favourable conditions for tourism through enhanced global connectivity and economic collaboration. However, in the short term, exports did not significantly influence tourism flows, as indicated by the Wald Test. In other words, while exports played a role in shaping the structural foundation for tourism, their immediate impact was limited. Infrastructure development, on the other hand, revealed a contrasting pattern. While the VECM findings reported a statistically insignificant relationship in the long run, the Wald Test found a significant short-run influence. This result indicated that newly implemented infrastructure projects such as airports, roads and communication networks may provide immediate benefits to the tourism sector, by improving accessibility and services. However, these effects may not persist or accumulate over time, possibly due to issues of maintenance, quality or lack of long-term planning.

Finally, this study indicated that consumer spending patterns alone would not be sufficient predictors of tourism flows in the selected Mediterranean countries and that other factors such as policy stability, environmental quality and global perceptions played more dominant roles. Overall, the findings reflected complex interdependencies among economic, environmental and infrastructural variables in shaping tourism trends. The study demonstrated the need for integrated policymaking, that would balance economic growth, environmental sustainability and strategic infrastructure investment to foster long-term tourism development.

10. Suggestions

Few policy recommendations are suggested, on the basis of the results. Firstly, investing in robust tourism infrastructure, including transportation, accommodation and digital connectivity, is recommended because countries, with better infrastructure, can handle increased tourist volumes while providing a high-quality experience. Secondly, promoting sustainable tourism is recommended because sustainable tourism practices would minimize environmental impact. The rationale is Mediterranean ecosystems are fragile and vulnerable to mass tourism and hence the recommendation. Thirdly, diversifying tourism offerings are recommended, by promoting cultural, culinary and adventure tourism, alongside traditional beach tourism. Next, marketing strategies may be enhanced by tailoring marketing campaigns to attract high-value, low-impact tourists. Finally, strengthening regional cooperation is recommended by collaborating with neighbouring countries to develop cross-border tourism strategies.

11. Conclusion

This study demonstrated the importance of tourism in the Mediterranean region, particularly in Egypt, Morocco, Albania, Tunisia, and Slovenia, as well as its relevance to other Mediterranean nations. The findings could offer valuable insights for policymakers, investors and governments, helping them to understand the consequences of tourism decline. One of the major effects of reduced tourism is the decline in GDP. According to **Njoya et al. (2022)**, travel and tourism accounted for 10.4% of global GDP and supported approximately 319 million jobs worldwide. A downturn in tourism would result in fewer job opportunities, both directly in hospitality sectors and indirectly in supporting businesses, leading to higher unemployment rates and negative economic impacts.

Additionally, decreased tourism can deter foreign investors, as noted by **Fauzel (2021)**. Foreign Direct Investment (FDI) is crucial for

economic growth as it encourages exports and facilitates technology transfer. A weak tourism sector signals an unfavorable investment climate, making it difficult for countries to attract or retain investors, thereby hindering tourism development and overall economic progress. Further, lack of tourists can slow infrastructure development, as pointed out by **Nguyen (2021)**. Infrastructure plays a vital role in tourism competitiveness, as visitors prefer destinations with well-developed facilities. A poor tourism image can negatively affect a country's attractiveness, limiting investment in infrastructure and slowing tourism sector growth. Without significant improvements, a country may struggle to enhance its tourism industry, further impacting economic sustainability.

12. Limitations of the Study

This study suffered from several limitations. One of the primary constraints was the limited sample size, which may affect the generalizability of the findings, to all Mediterranean countries. A small sample size can restrict the ability to detect significant patterns and associations in international tourism, making it difficult to apply the results to the entire region. Consequently, this limitation increased the risk of sampling errors, which can lead to discrepancies between the study's findings and the actual trends in international tourism in Mediterranean countries. Additionally, this research examined the relationship between international tourism arrivals and five independent variables: total expenditure, exports, CO_2 emissions, passenger transport and infrastructure. One challenge in such a research was obtaining accurate and comprehensive data, which is essential for ensuring reliable results. Another limitation was the difficulty in establishing cause-and-effect relationships among these variables, as external factors, not included in the study, may influence the findings. Further, the study was geographically and temporally specific, meaning that its conclusions may not be applicable to other regions or time periods. Factors such as cultural differences, seasonality and political changes could alter the results over time, affecting the relevance of the findings, beyond the selected countries and timeframe.

13. Scope for Further Study

Future research on the relationship between international tourism arrivals and independent variables in Slovenia, Albania, Egypt, Morocco, and Tunisia, could benefit from a long-run approach. Conducting a study over an extended period would allow for a more indepth analysis of trends and patterns, providing a clearer understanding of the relationship between these factors. For instance, examining data over a decade would be far more informative than a short-term study, covering only one or two years. Long-term research can help reveal underlying trends that may not be immediately apparent in short-term data, offering a more accurate picture of the factors influencing tourism. Another valuable addition to future studies would be the inclusion of socio-economic and cultural elements, that may impact international tourism in these countries. Incorporating these factors could enhance understanding of the overall conditions and trends in the tourism market while demonstrating how these aspects relate to the independent variables. Socio-economic factors such as GDP per capita, population growth and education levels, along with cultural aspects like traditions, language, and historical significance, could provide deeper insights into tourism dynamics. Moreover, considering these factors could help identify potential challenges or opportunities in the tourism industry and aid in the development of effective strategies to address them. Additionally, analyzing these elements could offer insights into

the preferences and behaviours of tourists visiting these regions, leading to better policymaking and marketing strategies tailored to attract international visitors.

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15. References

Akbulaev, N., & Mirzayeva, G. (2020). Analysis of a paired regression model of the impact of income from international tourism on the foreign trade balance. *DOAJ (DOAJ: Directory of Open Access Journals)*. https://doaj.org/article/972e870e21f6410b9e5413f8be623f16

Behsudi, A. (2020). Tourism-dependent economies are among those harmed the most by the pandemic. Finance and Development. Retrieved from https://www.imf.org/en/Publications/fandd/issues/2020/12/impact-of-the-pandemic-on-tourism-behsudi

Chaisumpunsakul, W., & Pholphirul, P. (2017). Does international trade promote international tourism demand? Evidence from Thailand's trading partners. *Kasetsart Journal of Social Sciences*, *39*(3), 393–400. https://doi.org/10.1016/j.kjss.2017.06.007

Dahir (2021). Egyptology is Having a Big Moment. But will Tourists Come? Retrieved from The New York Times: https://www.nytimes.com/2021/04/24/world/middleeast/egypt-tourism-covidmummies.html

Dogru, T., Bulut, U., & Sirakaya-Turk, E. (2019). Modeling tourism demand: Theoretical and empirical considerations for future research. *Tourism Economics*, *27*(4), 874–889. https://doi.org/10.1177/1354816619894460

Essouaid, D., & Rejeb, H. (2017). An Approach to Tunisian Tourism According to the. *American Journal of Applied Psychology*, 45-49.

Fauzel, S. (2021). FDI and tourism futures: a dynamic investigation for a panel of small island economies. *Journal of Tourism Futures*, 98-110.

Ferretti, G. M. (2021). The COVID-19 travel shock hit tourism-dependent economies hard. Retrieved from Brookings: https://www.brookings.edu/research/the-covid-19-travel-shock-hit-tourismdependent-economies-hard/

Garrity, T. (2022). InsideHook. Retrieved from Slovenia Is One of the Least Popular Tourist Destinations in Europe. Here's Why You Should Go: https://www.insidehook.com/article/travel/slovenia

Ghalehkhondabi, I., Ardjmand, E., Young, W. A., & Weckman, G. R. (2019). A review of demand forecasting models and methodological developments within tourism and passenger transportation industry. *Journal of Tourism Futures*.

Gosar, A. & Cigale, D. (2015). Trends and characteristics of tourism development in Slovenia. *Mitteilungen der Osterreichischen Geographischen Gesellschaft*. 157. 195-228. DOI:10.1553/moegg157s195

Kim, Y. F. (2015). Analyzing the leisure activities of the Baby Boomers and the Generation of Liberation: evidence from South Korea. *Journal of Tourism and Cultural Change*. 132 (2), 132–148

Li, H., Gozgor, G., Lau, C. K., & Paramati, S. R. (2019). Does tourism investment improve the energy efficiency in transportation and residential sectors? Evidence from the OECD economies. *Environmental Science and Pollution Research*. 26(18):18834-18845. doi: 10.1007/s11356-019-05315-7. Epub 2019 May 7.

Mamirkulova, G., JianingMi, & JaffarAbbas. (2020). New Silk Road Infrastructure Opportunities in Developing Tourism Environment for Residents Better Quality of

Life. *Global Ecology and Conservation*. Retrieved from https://www.sciencedirect.com/science/article/pii/S2351989420307356

Mandić, A., Mrnjavac, Ž., & Lana Kordić. (2018). Tourism Infrastructure, Recreational Facilities and Tourism Development, Tourism and Hospitality Management, Retrieved from https://www.researchgate.net/publication/325158801_Tourism_Infrastructure_Recreational_Facilities_And_Tourism_Development

Mura, P., & Wijesinghe, S. N. R. (2021). Critical theories in tourism – a systematic literature review. *Tourism Geographies*, *25*(2–3), 487–507. https://doi.org/10.1080/14616688.2021.1925733

Nguyen, Q. H. (2021). Impact of Investment in Tourism Infrastructure Development on Attracting International Visitors: A Nonlinear Panel ARDL Approach using Vietnam's Data. *Economies*, 131. Retrieved from from https://www.mdpi.com/2227- 7099/9/3/131

Njoya, E. T., Efthymiou, M., Nikitas, A., & E, J. o. (2022). The Effects of Diminished Tourism Arrivals and Expenditures Caused by Terrorism and Political Unrest on the Kenyan Economy. *Economies*, 191

Adeola, O., & Evans, O. (2019). ICT, infrastructure, and tourism development in Africa. *Tourism Economics*, *26*(1), 97–114. https://doi.org/10.1177/1354816619827712

Pulaj, A. (2022). Albania's tourism industry is on the rise, increasing risk of child sexual exploitation, warns new report. Retrieved from Global Voices: https://globalvoices.org/2022/10/16/albanias-tourism-industry-is-on-the-riseincreasing-risk-of-child-sexual-exploitation-warns-newreport/#:~:text=Tourism%20contributes%20to% 20the%20development,them%20from%20the%20European%20Union.

Rangus, M., & Brumen, B. (2016). Theory and Practice, Development of Tourism Research. Retrieved from https://www.researchgate.net/publication/308032136_Theory_and_Practice_Development_of_Tourism_ Research

Ren, T., Can, M., Reddy Paramati, S., Fang, J. and Wanshan Wu, (2019). The Impact of Tourism Quality on Economic Development and Environment: Evidence from Mediterranean Countries. *Sustainability*. 11(8), 2296; https://doi.org/10.3390/su11082296

Selimi, N., Sadiku, L., & Sadiku, M. (2017). The Impact of Tourism on Economic Growth in the Western Balkan Countries: An Empirical Analysis. *International Journal of Business and Economic Sciences Applied Research*, 19-25.

Streimikiene, D. (2015). Review of Rural Tourism Development Theories. Transformations in Business and Economics. Retrieved from chromeextension://efaidnbmnnnibpcajpcglclefindmkaj/http://www.transformations.knf.vu.lt /35/ge35.pdf

Tekken, V., & Kropp, J. P. (2015). Sustainable water management - perspectives for tourism development. *Tourism Management Perspectives*, 325-334.

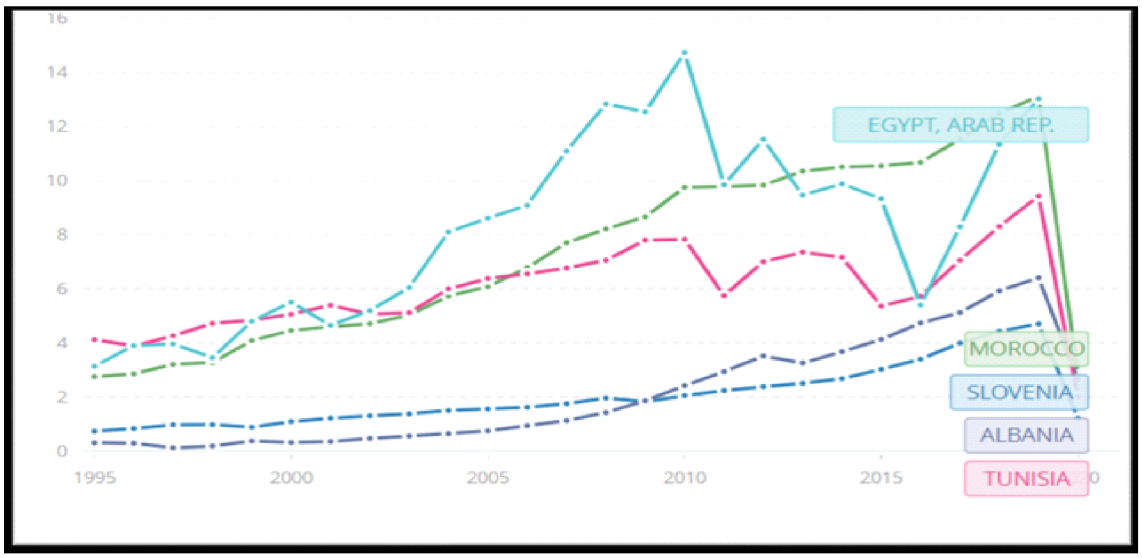
Usmani, G., Akram, V., & Praveen, B. (2020). Tourist arrivals, international tourist expenditure, and economic growth in BRIC countries. *Journal of Public Affairs*, *21*(2). https://doi.org/10.1002/pa.2202

Wamboyea, E. F., Nyaronga, P. J., & Sergi, B. S. (2020). What Are The Determinant of International Tourism in Tanzania? *World Development Perspectives*. Retrieved from https://www.researchgate.net/publication/339801021_What_are_the_determinant_of_international_tourism_in_Tanzania

Widz, M., & Wojcik, T. B. (2020). Assessment of the Overtourism Phenomenon Risk in Tunisia in Relation to the Tourism Area Life Cycle Concept. *Sustainability*. 12(5), 2004; https://doi.org/10.3390/su12052004

Zikirya, B., Wang, J., & Zhou, C. (2021). The relationship between CO2 emissions, Air Pollution, and tourism flows in China: A panel data analysis of Chinese provinces. *Sustainability*, 13(20), 11408. https://doi.org/10.3390/su132011408

Figure 1: Trends in International Tourist Arrivals (1995–2020) in Albania, Egypt, Tunisia, Morocco, and Slovenia



Source: OECD Data (2023). International Tourism: Number of Arrivals. Retrieved from https://data.oecd.org on April 5, 2025.

Table-1: Johansen Cointegration Test Results Regarding International Tourism Based on Arrivals in Five Selected Mediterranean Countries

Hypothesized Number. of CE	Fisher Statistics*			
	trace test	P-value	max-eigen	P-value
None	299.4	0.0000	445.9	0.0000
Almost 1	116.2	0.0000	77.20	0.0000
Almost 2	50.17	0.0000	31.19	0.0005
Almost 3	25.82	0.0040	12.47	0.2550
Almost 4	19.48	0.0346	12.82	0.2342
Almost 5	14.49	0.1517	14.49	0.1517

Source: Secondary data and computed using E-views

Table-2: Vector Error Correction Model (VECM) Long-Run Estimation Results Regarding International Tourism Based on Arrivals in Five Selected Mediterranean Countries

Variables	Coefficient	Standard Error	t-Statistic	p-value
PT	-0.0903	0.0395	-2.2896	0.0230
TE	-0.1025	0.0557	-1.8392	0.0672
CO_2	-0.1331	0.0294	-4.5294	0.0000
EX	-0.0369	0.0147	-2.5183	0.0125
INF	-0.0983	0.0857	-1.1477	0.2524

Source: Secondary data and computed using E-views

Table-3: Wald Test for Short-Run Dynamics Regarding International Tourism Based on Arrivals in Five Selected Mediterranean Countries

Variables	P-value
PT	0.0020
TE	0.2676
CO2	0.0000
EX	0.1030
INF	0.0028

Source: Secondary data and computed using E-views