Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram

From Tourism to Investments, Tracing Economic Footprints in Thailand: Empirical Insights and Policy Roadmap

Abstract

International tourism and foreign direct investment (FDI) constitute the bedrock of economic vitality, propelling growth and progress in the economies. This study delves into the intricate relationships among international tourism, FDI, and economic growth within the context of Thailand. Nevertheless, a tourism development index is created by pooling distinct components of global tourism to evaluate the aggregate effect on economic growth. Using data from 1991 to 2021 and the ARDL bound testing approach to cointegration, this study indicates that international tourism and FDI have long-term positive impacts on Thailand's economic growth. The sensitivity and stability tests were used to assess the robustness of these results. The study's results promise to influence policy choices and shape industry approaches while enriching discussions on the economic impacts of the factors investigated.

Keywords: ARDL approach, economic growth, FDI, tourism development index, Thailand

1. Introduction

Tourism and foreign direct investment (FDI) stand as cornerstones of global economic integration, playing a pivotal role in shaping the growth trajectories of nations worldwide (Emako et al., 2022; Haller et al., 2021; Mehmood & Bilal, 2021). Tourism is a significant and rapidly expanding industry that is closely connected to economic activities in various areas. Tourism fosters economic growth by generating revenue through diverse routes, such as accommodation, transportation, food, entertainment, and cultural activities. Tourism generates substantial revenue through visitor expenditures on various goods and services (Aliyev & Ahmadova, 2020; Udemba, 2019). The surge in these activities infuses crucial money into regional economies, promoting the growth of new businesses, providing assistance to small and medium-sized companies, and stimulating economic expansion and variation (Chen, 2023; Mehmood & Kaewsaeng-on, 2024b; Roudi et al., 2019). The indispensable engine of economic expansion is FDI, defined as the infusion of capital from one nation into the operations of another (Chaudhry et al., 2013). Countries hostilely want FDI because it provides access to international markets, cutting-edge technologies, management know-how, and financial resources. This injection of outside expertise and capital promotes increased productivity, job creation, industry expansion, and a favorable climate for long-term economic growth (Chaudhry et al., 2013; Obeng-Amponsah & Owusu, 2023; Sokhanvar & Jenkins, 2022). FDI can significantly impact a country's tourist sector in the tourism industry by increasing infrastructure, service quality, job possibilities, and foreign exchange benefits (Kumar et al., 2022; Razzaq et al., 2023). However, International tourism brings in foreign currency as visitors spend

Saqib Mehmood, PhD, Corresponding Author, Lecturer, Department of Commerce, University of Gujrat, Gujrat, Pakistan; Post-Doctoral Research Fellow, Faculty of Humanities and Social Sciences, Department of Business Administration, Prince of Songkla University, Thailand; ORCID ID: https://orcid.org/0000-0001-5829-1849; e-mail(s): miansaqibmehmood@gmail.com; saqib.mehmood@uog.edu.pk

Rudsada Kaewsaeng-on, PhD, Assistant Professor, Faculty of Humanities and Social Sciences, Department of Business Administration, Prince of Songkla University, Thailand; ORCID ID: https://orcid.org/0000-0003-0128-8854; e-mail: rudsada.k@psu.ac.th

Tahira Iram, PhD, Faculty of Commerce and Finance, Superior University, Lahore, Pakistan; ORCID ID: https://orcid.org/0000-0003-3571-7987; e-mail: mini_sayal1@yahoo.com

on goods and services in the host country. This influx of foreign exchange helps bolster the nation's reserves, stabilize the economy, and support international trade (Sokhanvar, 2019; Soylu et al., 2023).

The Kingdom of Thailand, located in Southeast Asia, has always been acknowledged as a prominent international tourist destination, enticing visitors with its abundant cultural history, breathtaking scenery, and lively local encounters. Thailand has become a popular destination for international tourists and FDI in recent decades. This study explores the complex relationship between tourism and FDI in Thailand, aiming to understand the diverse economic impacts caused by these influential factors and offer practical findings that can guide the formulation of a comprehensive policy plan for sustainable economic growth. This study intends to tackle multiple pertinent concerns in this context. How do international tourism and economic growth interact?

Furthermore, what is the economic impact of international visitor arrivals on Thailand? What are the potential economic effects of global tourism—specifically, the tourism development index—in Thailand? What is the financial impact of FDI on Thailand's economy?

By filling a significant research void, this work contributes to the current body of literature in the following ways. For example, 1) The study contributes significantly to the economic dimensions of international tourism by creating a tourism development index through employing Principal Component Analysis (PCA) to amalgamate its three distinct components: (i) International tourism, number of arrivals, (ii) International tourism, receipts for passenger transport items (current USD), and (iii) International tourism, receipts for travel items (current USD). This index allows for a comprehensive and integrated examination of the critical facets of international tourism on Thailand's economic growth. PCA is instrumental in creating a tourism development index (TX) due to its capacity to condense multidimensional tourism data into a concise and meaningful representation. PCA streamlines the calculation process by extracting the most significant dimensions from many tourism-related factors while ensuring that crucial aspects of tourism development are captured effectively. This reduction not only simplifies interpretation but also enables policymakers to pinpoint key drivers of tourism growth and prioritize areas for improvement. PCA's ability to preserve essential information while eliminating redundancy guarantees the TX's accuracy and reliability, making it an invaluable tool for guiding strategic decision-making and promoting sustainable tourism development. It offers a methodological contribution, showcasing the effectiveness of data integration techniques in enhancing our understanding of the multifaceted nature of this vital economic phenomenon. 2) By considering the importance of FDI in economic progression, the present study considers total FDI in Thailand to determine the shape of economic growth. 3) The study supported its findings with prudent econometric analyses, the robustness and sensitivity of which were assessed via several tests. However, policymakers may use the results of this study.

2. Tourism and investments in Thailand

Tourism in Thailand has experienced significant growth and has emerged as a vital and dynamic sector that substantially influences the country's economy, culture, and social fabric. Thailand has emerged as a prominent global tourism destination, attracting a substantial influx of tourists from around the world annually. Thailand received over 10 million visitors in 2022 and earned 500 billion Baht in foreign tourism earnings. According to the Tourism Authority of Thailand (TAT), out of 2.38 trillion Baht in tourist revenue, 20 million arrivals and 1.5 trillion Baht in international tourism revenue are the goals for 2023 (TAT News, 2022). Thailand is widely recognized for its breathtaking landscapes, profound cultural legacy, and amiable hospitality. Thailand attracts tourists with its diverse attractions, including unspoiled coastlines, lush tropical islands, culturally significant temples, colorful marketplaces, and bustling urban centers. The nation's natural beauty, bustling cities, and distinct cultural experiences attract travelers seeking relaxation, adventure, transcendence, or cultural integration (TAT News, 2022).

TOURISM
An International Interdisciplinary Journal

Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram
From Tourism to Investments, Tracing Economic Footprints, Thailand
Vol. 72/ No. 4/ 2024/ 538 - 550

539

Thai tourism offers many activities and attractions. Bangkok's temples, Ayutthaya and Sukhothai, are historical sites. For nature lovers, Thailand has Phuket, Koh Samui, Phi Phi Islands, and beautiful national parks like Khao Sok and Doi Inthanon. Bangkok and Chiang Mai provide vibrant street markets, delicious street food, and lively nightlife. Tourism has accelerated infrastructure development in Thailand, constructing modern airports, hotels, resorts, and transit networks. The industry has also played an essential role in job creation, considerably increasing employment prospects in towns nationwide (TAT News, 2023). Thailand ranks third in the world with a travel balance surplus of 46 billion USD, trailing only the United States of America and Spain, which have 62 and 52 billion USD balances, respectively. Thailand is eighth among the top 10 global destinations, collectively accounting for 40% of international tourist visits (World Tourism Organization [UNWTO], 2020). Thailand has trade agreements with other countries and areas through ASEAN (Association of Southeast Asian Nations), facilitating cross-border trade and investment. Thailand wants economic accountability to improve its developing economy status (Fareed et al., 2018). Thailand's leading tourism agency, TAT, works with many stakeholders to promote long-term growth and responsible tourism (TAT News, 2023; UNWTO, 2020). The tourism growth nexus from 1991–2021 is shown in Figure 1.

Figure 1
International tourism, number of arrivals in Thailand
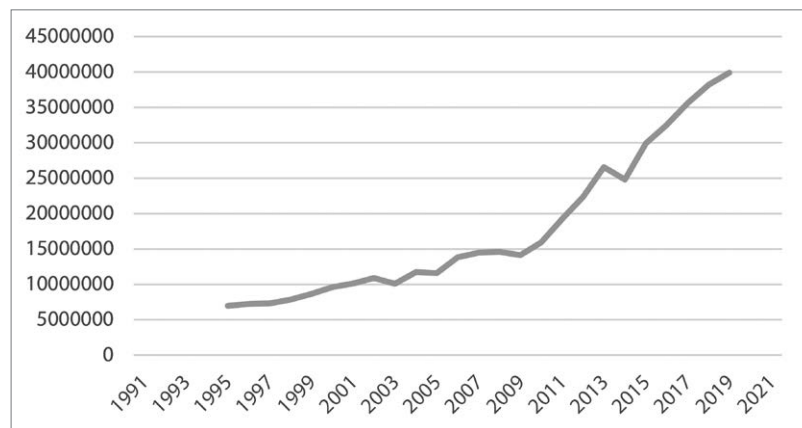
According to the Thailand Board of Investment (TBOI, 2023), Thailand's gross domestic product (GDP) was USD 495.2 billion in 2022, with a GDP per capita of USD 7,089.7, representing a 2.6% tangible real GDP growth. Consumer price inflation was 6.1%. In 2022, the current account deficit was 3.4% of GDP. According to the United Nations Conference on Trade and Development's (UNCTAD) 2022 World Investment Report, FDI inflows totaled USD 11.42 billion in 2021.

The rest of the paper is organized as follows: the second section reviews related literature, the third section explains the research methodology, the fourth section discusses empirical results, and the fifth section will draw well-supported conclusions and policy prescriptions.

3. Review of related studies

The interplay between international tourism, FDI, and economic growth has garnered considerable attention from scholars and policymakers globally (Razzaq et al., 2023; Roudi et al., 2019; Sokhanvar & Jenkins, 2022). The foundational role of these two pillars in shaping economic vitality and progress has led to a growing body of literature that seeks to understand their intricate relationships. This literature review provides a comprehensive overview of critical studies and findings, focusing on the nexus of international tourism, FDI, and economic growth.

TOURISM
An International Interdisciplinary Journal

Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram
From Tourism to Investments, Tracing Economic Footprints, Thailand
Vol. 72/ No. 4/ 2024/ 538 - 550

540

The phenomena of international tourism have transformed, transitioning from a recreational activity to a vital stimulus for economic progress on a worldwide scale (Obeng-Amponsah & Owusu, 2023; Soylu et al., 2023). Several research findings demonstrated a relationship between tourism development and economic growth, which lends credence to the idea that the relationship is unidirectional, with tourism development leading to economic progress (Santamaria & Filis, 2019; Udemba, 2019). The fundamental principle that underpins it is the idea of tourism-led economic growth, which holds the belief that tourism contributes to the economic growth of the country that is being considered (Nyasha et al., 2021; Shahbaz et al., 2020). Tourism contributes to economic diversification by supporting a wide range of industries. It provides entrepreneurs and small businesses opportunities to thrive, reducing dependence on a single economic sector (Haller et al., 2021; Santamaria & Filis, 2019). The tourism industry is a significant employer, generating many jobs in hospitality, transportation, entertainment, and local services. The diverse nature of tourism-related activities provides employment opportunities for individuals with varying skill sets and educational backgrounds (Renfors et al., 2020; Shah et al., 2022). The demand generated by tourism often acts as a catalyst for infrastructure development, leading to investments in transportation, accommodation, and public services. Giampiccoli et al. (2015) assert that such infrastructure investments enhance the visitor experience and contribute to the broader economic development of host regions.

On the other hand, several researchers back up the idea that tourism and growth are causally related in both directions–bi-directional causality (Brida et al., 2016; Seghir et al., 2015). The findings of Ren et al. (2019) indicate that the income level of visitor arrivals significantly influences the progress of economies in Mediterranean countries, spanning all quantiles. Still, the arguments of this study claim the variations and trends in the effects across different Mediterranean countries. On the other hand, Nyasha et al. (2021) found that tourism expenditure undermines economic growth in sub-Saharan African (SSA) countries while tourism receipts help. Tourism expenditure is robust in the middle-income sub-sample, while the findings are robust in the low-income sub-sample. Haller et al. (2021) consider tourism a vital element in the up-surging economic growth in European Union countries. Soylu et al. (2023) state that asymmetric effects of tourism on growth are observed in upper-middle-income nations. Albaladejo et al. (2023) conclude that estimating impulse response functions indicated that tourist developments boost economic growth. Thus, low-income countries in the early stages of tourism growth could escape poverty and gain from tourism.

FDI attracts significant capital investment, which, when integrated with domestic resources, aids in expanding the capital stock. As a result, increased productivity and economic expansion ensue (Chaudhry et al., 2013; Sokhanvar, 2019; Udemba, 2019). In the countries that receive FDI, job creation is significantly augmented. The main course behind it is to create employment opportunities by establishing new companies or expanding existing ones. This direct effect on employment contributes to increased living standards and economic expansion. FDI is often associated with industry diversification. Wei et al. (2020) argue that FDI contributes to the diversification of industries within a country, reducing dependence on a single sector. This diversification enhances economic resilience, as countries are less vulnerable to economic downturns in specific industries. The impact of FDI on economic growth underscores the multifaceted nature of this relationship. The concluding remarks of various studies suggest that FDI positively influences economic growth through mechanisms such as technology transfer, capital accumulation, human capital development, export promotion, and employment generation. However, the effectiveness of FDI depends on various factors, including the host country's institutional environment and policy framework (Emako et al., 2022; Kumar et al., 2022; Sokhanvar & Jenkins, 2022; Udemba, 2019). Sarpong et al. (2024) highlight the contingent nature of FDI impact, emphasizing that favorable institutional environments and supportive policy frameworks are essential. The study suggests that countries with sound institutions and conducive regulatory environments are better positioned to harness the full potential of FDI for economic growth (Chaudhry et al., 2013; Ibhagui, 2020). Nevertheless, relying solely on one sector, such as tourism, is hazardous. FDI in

TOURISM
An International Interdisciplinary Journal

Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram
From Tourism to Investments, Tracing Economic Footprints, Thailand
Vol. 72/ No. 4/ 2024/ 538 - 550

541

the tourism industry can contribute to economic diversification by attracting investments in other sectors, thereby reducing the economy's susceptibility to fluctuations in the tourism industry (Tufail et al., 2023; Santamaria & Filis, 2019).

Different studies came up with various concluding remarks and utilized different materials to explain their stance on targeted issues. However, a comprehensive analysis must be performed on the nexus of tourism, investments, and economic growth in Thailand.

4. Materials and methods

4.1. Data and model specification

Using data from 1991 to 2021, the current study aims to objectively investigate the relationship between tourism, FDI, and economic growth in Thailand. Table 1 presents the operationalization and illustration of the variables.

Table 1
Operationalization of variables

Variables	Code	Operationalization	Source
Economic growth	EG	It is proxied by GDP per capita, and the data are currently in USD.	WDI (2023)
Tourism development index	TX	It is created through PCA by pooling three distinct components of international tourism: (i) number of arrivals, (ii) receipts for passenger transport items (current USD), and (iii) receipts for travel items (current USD).	WDI (2023)
Foreign direct investment	FI	Foreign direct investment, net inflows (% of GDP)	WDI (2023)

Note. All variables are normalized by calculating the z-score.

The variables of the present study were normalized by calculating the z-score. However, a fundamental statistical practice enhances the comparability, interpretability, and performance of analyses involving multiple variables. It contributes to a more standardized and normalized data representation, facilitating meaningful comparisons and insights in statistical modelling and analysis (Kaewsaeng-on & Mehmood, 2024). Equation 1 represents the basic model of this study.

$$EG = f(TX, FI) \tag{1}$$

Equation (1) can be reformulated in econometric notation as follows;

$$EG_t = \beta_0 + \beta_1\, TX_t + \beta_2\, FI_t + \varepsilon_t \tag{2}$$

Meanwhile, EG, TX, and FI denote economic growth, tourism development index, and foreign direct investments. Nevertheless, ε_t Represents the error term.

4.2. Methodological layout

4.2.1. Unit root testing

Unit root tests assist in determining whether a variable is characterized by a stochastic process, which might result in erroneous regression results (Mehmood & Kaewsaeng-on, 2024a). Checking for unit roots is critical to ensuring an econometric study's validity, reliability, and interpretation (Chaudhry et al., 2013; Shahbaz et al., 2020). Statistics from the Phillips-Perron (PP) and Augmented Dickey-Fuller (ADF) tests were utilized in the present study to test the unit root.

TOURISM
An International Interdisciplinary Journal

Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram
From Tourism to Investments, Tracing Economic Footprints, Thailand
Vol. 72/ No. 4/ 2024/ 538 - 550

542

4.2.2. Cointegration evaluation

The bound testing F-statistic is used to determine cointegration. The F-statistic is compared to upper and lower critical values to prove cointegration. Critical values—upper and lower—depend on degrees of freedom and significance level. If the F-statistic exceeds the critical value upper bound, the null hypothesis of no cointegration is rejected, indicating cointegration, and vice versa. However, upper and lower bounds help determine whether the F-statistic is in the crucial zone and whether to reject the null hypothesis. The statistical significance of cointegration depends on the F-statistics threshold magnitude. (Chaudhry et al., 2013; Obeng-Amponsah & Owusu, 2023).

4.2.3. ARDL bound testing approach

The present study employed an autoregressive distributive lag approach (ARDL) developed by Pesaran et al. (2001) concerning the data set's attributes. The estimate is claimed to possess superior quality due to its numerous distinctive characteristics. First, ARDL models quantify the interactions between variables in the short and long term. This is crucial for studying dynamic interactions in which shocks or alterations impact different periods. Second, ARDL models can address endogeneity concerns by using lagged values of both dependent and independent variables. This mitigates the risk of endogeneity bias in the calculated coefficients. Thirdly, ARDL models are capable of accommodating situations where variables have different integration orders, such as I (0), I (1), and others, except for I(2) (Obeng-Amponsah & Owusu, 2023; Shahbaz et al., 2020). Fourth, The ARDL model selection approach involves determining the appropriate delays for each variable to minimize the impact of omitted variables and avoid overfitting. Fifth, ARDL modelling mitigates the occurrence of spurious regression, a common problem in time series analysis, by effectively dealing with the issue of changing unit roots (Kumar et al., 2022). Sixth, ARDL models provide robustness against deviations from normalcy assumptions and heteroscedasticity, rendering them appropriate for analyzing real-world economic data that may not adhere to stringent assumptions.

The estimation version of the ARDL bound testing approach is presented in Equation 3.

$$\Delta EG_t = \beta_0 \sum_{t=1}^{q} \beta_{1t}\Delta EG_{t-1} + \sum_{t=0}^{q} \beta_{2t}\Delta TX_{t-1} + \sum_{t=0}^{q} \beta_{3t}\Delta FI_{t-1} + \beta_4 EG_{t-1} + \beta_5 TX_{t-1} + \beta_6 FI_{t-1} + \varepsilon_t \quad (3)$$

In this context, Δ is the first difference operator, q is the optimal lag length, β_1 to β_3 are short-run mechanics, and β_4 to β_6 are long-run elasticity.

4.2.4. Error correction model

A significant negative error correction term (ECT) coefficient makes the ARDL model stable and well-specified. It assures that the model includes short-term dynamics and long-term variable equilibrium (Chaudhry et al., 2013; Fareed et al., 2018). A negative and statistically significant ECT coefficient in an ARDL model is essential in various ways. First, it confirms the model's cointegrating status. Second, it verifies model stability and specification. Finally, it assures that the model incorporates dynamic variable modifications toward long-run equilibrium.

$$\Delta EG_t = \beta_0 \sum_{t=1}^{q1} \beta_{1t}\Delta EG_{t-1} + \sum_{t=0}^{q2} \beta_{2t}\Delta TX_{t-1} + \sum_{t=0}^{q3} \beta_{3t}\Delta FI_{t-1} + ɷEC_{t-1} + \varepsilon_t \quad (4)$$

Equation 4 shows the appropriate lag length $q1$–$q3$. The parameter ɷ indicates adjustment speed, while EC refers to long-term bond error correction.

Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram
From Tourism to Investments, Tracing Economic Footprints, Thailand
Vol. 72/ No. 4/ 2024/ 538 - 550

543

TOURISM
An International Interdisciplinary Journal

4.2.5. Sensitivity and stability analysis

The present study is conscious of the sensitivity or diagnostic and stability tests. However, the study first employed the Ramsey RESET test to identify potential errors in the functional form specification of a regression model. Second, the Breusch-Godfrey Lagrange Multiplier (LM) test to detect the presence of serial correlation, also known as autocorrelation, in the residuals of a regression model (Fareed et al., 2018; Obeng-Amponsah & Owusu, 2023; Shahbaz et al., 2020). Third, the Breusch-Pagan-Godfrey test to assess the presence of heteroscedasticity within the residuals of a regression model. Fourth, CUSUM and CUSUM of Squares tests are applied to test structural stability in the time series data (Chaudhry et al., 2013; Kumar et al., 2022).

5. Results and discussion

Table 2 displays the primary descriptive statistics of the variables of this study. However, the Jarque-Bera test confirms the normal distribution of the series. This implies that the variables possess an average value of zero and exhibit a consistent level of variability. lens

Table 2
Descriptive statistics

Consideration	EG	TX	FI
Mean	1.00E-16	9.68E-07	-6.38E-16
Median	-0.356029	-0.199620	0.020626
Maximum	1.849052	2.127580	2.577769
Minimum	-1.175689	-1.479850	-2.363809
Std. Dev.	1.000000	0.999999	1.000000
Skewness	0.396593	0.425517	0.179347
Kurtosis	1.659889	2.697586	3.322212
Jarque-Bera	3.132348	1.053629	0.300290
Probability	0.208843	0.590483	0.860583

Source: Author's calculation.

This study used the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests; the results of these tests are presented in Table 3. EG and TX are stationary at the first difference since the FI is stationary at a level, according to the applied tests. The combination of orders can also result in using the ARDL bounds testing technique, which initiates with F-statistics to confirm cointegration.

Table 3
Unit root tests

Variables	ADF test statistics			Phillips-Perron test statistics		
	With trend and intercept	With intercept	None	With trend and intercept	With intercept	None
EG	-1.5690	0.0352	-0.4596	-1.7394	-0.0994	-0.4338
TX	-2.2538	-1.7986	-1.8278*	-1.3022	-1.9607	-1.9896**
FI	-2.7847	-3.7614***	-3.8282***	-3.7873**	-3.7376***	-3.8062***
Δ EG	-3.8491**	-3.8711***	-3.3890***	-3.6526**	-3.7562***	-3.3972***
Δ TX	-4.6787***	-4.3676***	-4.4515***	-4.6707***	-4.3667***	-4.4505***
Δ FI	-6.0513***	-6.0134***	-6.1439***	-10.8555***	-9.8120***	-10.074***

Source: Author's calculation.
***, **, & * show significance at 1%, 5%, & 10% level of significance, respectively.

Table 4 displays the F-statistics for bound testing. Nonetheless, the anticipated findings indicate cointegration since the computed F-statistic value of 8.7851 is above the upper limit of the critical values at both

TOURISM
An International Interdisciplinary Journal

Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram
From Tourism to Investments, Tracing Economic Footprints, Thailand
Vol. 72/ No. 4/ 2024/ 538 - 550

544

the 1% and 5% significance levels. It can potentially assist in calculating the ARDL model's short- and long-term results.

Table 4
Calculation of F-statistics to bound test

Model: EG = f (TX, FI)			Critical values	
Test statistic	Value	Significance level	Lower bound	Upper bound
F-statistic (computed)	8.7851	10%	2.63	3.35
		5%	3.10	3.87
		2.5%	3.55	4.38
		1%	4.13	5.00

Source: Author's calculation.

Before implementing the ARDL model, the lag length selection is crucial as it can substantially impact the parameters' outcomes. Table 5 displays many factors for evaluating lag length. Nevertheless, this study examines the Akaike Information Criterion (AIC) due to its relevance in time-series estimations (Chaudhry et al., 2013; Kumar et al., 2022).

Table 5
Selection of lag-length

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-100.9457	NA	0.443150	7.699683	7.843665	7.742496
1	-45.84802	93.87016	0.014669	4.285038	4.860966*	4.456292
2	-37.09342	12.96977	0.015389	4.303216	5.311089	4.602910
3	-24.73467	15.56287	0.012929	4.054420	5.494238	4.482553
4	-3.566183	21.95250*	0.006097*	3.153051*	5.024815	3.709624*

Source: Author's calculation.
Note. LR: sequential modified LR test statistic, FPE: Final prediction error, and AIC, SC, and HQ represents Akaike, Schwarz, and Hannan-Quinn information criterion.
* indicates lag order selected by the criterion.

The long-run results of the ARDL model are presented in Table 6. The findings suggest that a 1% rise in TX results in a 0.2617% increase in the EG in Thailand. It might raise money and resources to fund new initiatives, expand current companies, and improve infrastructure. The findings, therefore, underscore the symbiotic relationship between TX and EG in Thailand. The positive coefficient signifies that the tourism sector is a source of revenue and a catalyst for broader economic development. The tourism sector becomes a catalyst for local businesses, with restaurants, retailers, and tour operators benefiting directly from tourists' spending. This symbiotic relationship bolsters these specific sectors and has a ripple effect throughout the economy. However, these findings are aligned with Haller et al. (2021) and Sokhanvar and Jenkins (2022), which consider TX as a significant icon in uplifting the concerned economy, and contradict Ren et al. (2019), which narrate differential effects.

The observed positive and significant relationship between FI and EG in Thailand, as indicated by the calculated coefficient, suggests that changes in FI have a notable impact on the country's overall economic expansion. Specifically, the interpretation of a 1% increase in FI resulting in a 0.0850% increase in EG. The positive coefficient underscores the role of FDI as a significant driver of economic growth in Thailand. As foreign investors contribute capital, technology, and expertise to the local economy, they stimulate various economic activities, expanding overall economic output. However, in the long run, it can be concluded that the FI is a significant driver of economic growth when discussing it from Thailand's perspective. However, these findings are aligned with Chaudhry et al. (2103), Ibhagui (2020), and Obeng-Amponsah and Owusu (2023), which considers FI as a source of economic well-being. Nevertheless, these financial resources can stimulate economic growth, employment creation, and activity (Nyasha et al., 2021; Razzaq et al., 2023).

TOURISM
An International Interdisciplinary Journal

Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram
From Tourism to Investments, Tracing Economic Footprints, Thailand
Vol. 72/ No. 4/ 2024/ 538 - 550

545

Table 6
Long-run results of ARDL

Variable	Coefficient	Std. error	t-Statistic	Prob.
TX	0.261760**	0.109235	2.396314	0.0337
FI	0.086053**	0.037180	2.314477	0.0392
C	0.103083*	0.049632	2.076938	0.0599

Source: Author's calculation.
***, **, & * show significance at 1%, 5%, & 10% level of significance, respectively.

The significance of the short-run results and error correction estimation are presented in Table 7. However, the coefficient and sign associated with the error correction term hold critical implications for understanding the dynamics and adjustments within the ARDL model. The negative and significant coefficient of the ECM (-0.131656) implies a favorable and corrective effect. In the ARDL model context, this suggests deviations from the long-term equilibrium in Thailand's economic growth are corrected over time. The ECM acts as a stabilizing force, bringing the system back towards its equilibrium relationship, indicating that a shock to Thailand's economic growth considerably impacts the adjustment process. The negative sign signifies that the system tends to correct itself in response to a disturbance, gradually returning to its long-term equilibrium. A value closer to zero would suggest a slower adjustment, while a more significant absolute value indicates a faster return to equilibrium. In this case, the negative coefficient implies a gradual return to equilibrium over an extended period.

Table 7
Short-run results and error correction representation

Variable(s)	Coefficient	Std. error	t-Statistic	Prob.
Δ EG (-1)	0.409176**	0.163143	2.508080	0.0275
Δ TX	0.184787***	0.034230	5.398421	0.0002
Δ FI	0.086053***	0.027873	3.087341	0.0094
ECM (-1)	-0.131656***	0.019865	-6.627638	0.0000
R-squared	0.864979	**Mean dependent var**		0.086881
Adjusted R-squared	0.765964	**S.D. dependent var**		0.196204

Source: Author's calculation.
***, **, & * show significance at 1%, 5%, & 10% level of significance, respectively.

In the short run, the TX and FI significantly and positively affect EG. It could be narrated that both of these ingredients are of significant importance in attaining EG in Thailand. The adjusted R^2 measures the proportion of the variation in the dependent variable explained by the independent variables in the model. In this case, an adjusted R^2 of 86% indicates that a majority of the variability in Thailand's economic growth, as captured by the model, is accounted for by the included variables.
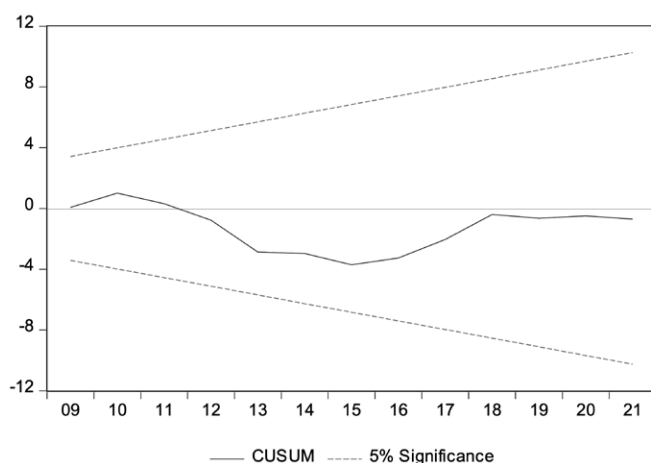
Table 8 presents the results of the sensitivity test. The computed facts indicate that the data dealt with all of the issues regarding sensitivity and stability. Indicators of parameter stability are shown in Figures 2 and 3.
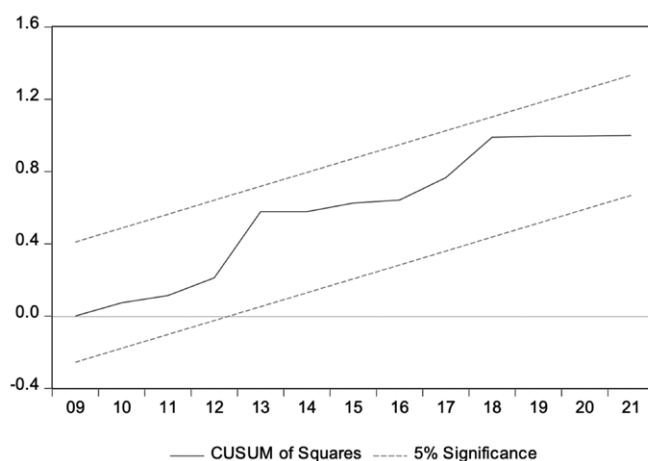
Table 8
Sensitivity and stability tests

Sensitivity tests	Issue	F-stat.	Prob.	Remarks
Ramsey RESET test	Model specification	0.3183	0.7562	Model is suitable
Breusch-Godfrey LM test	Serial correlation	0.1006	0.9051	No autocorrelation
Breusch-Pagan-Godfrey	Heteroscedasticity test	0.8813	0.5939	No heteroscedasticity
Stability tests				
CUSUM	Stability of parameters			Stable
CUSUMSQ	Stability of parameters			Stable

Source: Author's calculation.

TOURISM
An International Interdisciplinary Journal

Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram
From Tourism to Investments, Tracing Economic Footprints, Thailand
Vol. 72/ No. 4/ 2024/ 538 - 550

546

Figure 2
Plot of CUSUM test

Figure 3
Plot of CUSUM of squares test

6. Conclusion and policy prescription

The present study empirically examined Thailand's tourism, FDI, and growth nexus from 1991 to 2021. In conclusion, Thailand's vibrant and diverse tourism industry and FDI attraction have significantly influenced the nation's economy. The study signified the econometric techniques per the sensitivity and attributes of the data and came up with lucid outcomes. The findings establish a conclusive relationship between tourism, FDI, and short- and long-term economic growth. Nevertheless, the ECM term substantiates the sustained manifestation of the factors under investigation in this research. The sensitivity and stability analysis provides a deeper understanding of the policy recommendations that stakeholders can rely on. Thailand continues to be a popular vacation destination for tourists from all over the world thanks to its variety of attractions, rich heritage, and kind people, which helps to explain why it is currently ranked as the world's top tourist destination. Based on the findings of this study, the following policy recommendations are prescribed for the decision-makers in Thailand.

First, the notion that heightened tourism expenditures might draw in more financial resources aligns with the economic principle that increased spending within the tourism sector can create a ripple effect, stimulating

TOURISM
An International Interdisciplinary Journal

Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram
From Tourism to Investments, Tracing Economic Footprints, Thailand
Vol. 72/ No. 4/ 2024/ 538 - 550

547

various economic activities. As tourists spend on accommodations, dining, transportation, and local attractions, the injection of capital into these sectors benefits them directly and has spillover effects on related industries and services. This, in turn, supports economic growth by creating a conducive environment for investments, job creation, and infrastructure development. Policymakers and stakeholders in Thailand may consider leveraging these insights to formulate strategies that encourage and sustain tourism-related activities, recognizing their pivotal role in fostering long-term economic growth. Second, the findings of this study conclude FDI is a source of economic diversification and development. The observed positive impact on economic growth implies that FDI contributes to expanding existing industries and plays a role in the emergence of new sectors, fostering a more diverse and resilient economy. Moreover, the potential for attracting more resources and investments underscores the importance of policies promoting a favorable business environment, which can further amplify the positive impact of tourism expenditures on Thailand's economic landscape. Third, policies should be implemented that improve the ease of doing business and provide incentives for foreign investors and tourists that can attract more FDI and tourism into Thailand.

This study also has certain limitations. First, the study relies on data from 1991 to 2021, which might not capture more recent trends or changes in the relationship between international tourism, FDI, and economic growth. Second, the study's findings are specific to Thailand's context and may not be directly applicable to other countries or regions with different socio-economic conditions, policy environments, and levels of development. Extrapolating the results to other contexts should be done with caution. However, future studies should focus on these limitations to provide a more holistic view of the study's ingredients.

References

Albaladejo, I.P., Brida, J.G., González-Martínez, M.I., & Segarra, V. (2023). A new look to the tourism and economic growth nexus: A clustering and panel causality analysis. *The World Economy, 46*(9), 2835-2856. https://doi.org/10.1111/twec.13459

Aliyev, K., & Ahmadova, N. (2020). Testing tourism-led economic growth and economic-driven tourism growth hypotheses: The case of Georgia. *Tourism: An International Interdisciplinary Journal, 68*(1), 43-57. https://doi.org/10.37741/t.68.1.4

Brida, J.G., Cortes-Jimenez, I., & Pulina, M. (2016). Has the tourism-led growth hypothesis been validated? A literature review. *Current Issues in Tourism, 19*(5), 394-430. https://doi.org/10.1080/13683500.2013.868414

Chaudhry, N.I., Mehmood, A., & Mehmood, M.S. (2013). Empirical relationship between foreign direct investment and economic growth: An ARDL cointegration approach for China. *China Finance Review International, 3*(1), 26-41. https://doi.org/10.1108/20441391311290767

Chen, Q. (2023). The impact of economic and environmental factors and tourism policies on the sustainability of tourism growth in China: Evidence using novel NARDL model. *Environmental Science and Pollution Research, 30*(7), 19326-19341. https://doi.org/10.1007/s11356-022-22925-w

Emako, E., Nuru, S., & Menza, M. (2022). The effect of foreign direct investment on economic growth in developing countries. *Transnational Corporations Review, 14*(4), 382-401. https://doi.org/10.1080/19186444.2022.2146967

Fareed, Z., Meo, M.S., Zulfiqar, B., Shahzad, F., & Wang, N. (2018). Nexus of tourism, terrorism, and economic growth in Thailand: New evidence from asymmetric ARDL cointegration approach. *Asia Pacific Journal of Tourism Research, 23*(12), 1129-1141. https://doi.org/10.1080/10941665.2018.1528289

Giampiccoli, A., Lee, S.S., & Nauright, J. (2015). Destination South Africa: Comparing global sports mega-events and recurring localized sports events in South Africa for tourism and economic development. *Current Issues in Tourism, 18*(3), 229-248. https://doi.org/10.1080/13683500.2013.787050

Haller, A.P., Ionela Butnaru, G., Tacu Hârşan, G.D., & Ştefănică, M. (2021). The relationship between tourism and economic growth in the EU-28. Is there a tendency towards convergence? *Economic Research-Ekonomska Istraživanja, 34*(1), 1121-1145. https://doi.org/10.1080/1331677X.2020.1819852

TOURISM
An International Interdisciplinary Journal

Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram
From Tourism to Investments, Tracing Economic Footprints, Thailand
Vol. 72/ No. 4/ 2024/ 538 - 550

548

Ibhagui, O. (2020). How does foreign direct investment affect growth in sub-Saharan Africa? New evidence from threshold analysis. *Journal of Economic Studies, 47*(1), 149-181. https://doi.org/10.1108/JES-06-2018-0198

Kaewsaeng-on, R., & Mehmood, S. (2024). Quantile modelling for environmental risk: SAARC's journey with green finance, policies, and regulations. *Journal of Cleaner Production, 434*, Article 140234. https://doi.org/10.1016/j.jclepro.2023.140234

Kumar, N.N., Patel, A., Prasad, N.S., & Chandra, R.A. (2022). Nonlinear effect of foreign direct investments on tourism demand. *Journal of Policy Research in Tourism, Leisure and Events*, 1-21. https://doi.org/10.1080/19407963.2022.2151605

Mehmood, S., & Bilal, A.R. (2021). Investigation for finance–growth nexus: A dynamic common correlated estimator approach. *Global Business Review*. Advance online publication. https://doi.org/10.1177/09721509211016250

Mehmood, S., & Kaewsaeng-on, R. (2024a). Charting an economic sustainability path: Quantile regression analysis of green finance and financial development in newly industrialized economies. *Global Business Review.* Advance online publication. https://doi.org/10.1177/09721509231224019

Mehmood, S., & Kaewsaeng-on, R. (2024b). Greening wallets, or worsening landscapes: Exploring carbon footprints of renewable energy, tourism and financial development indices. *Natural Resources Forum*. Advance online publication. https://doi.org/10.1111/1477-8947.12396

Nyasha, S., Odhiambo, N.M., & Asongu, S.A. (2021). The impact of tourism development on economic growth in Sub-Saharan Africa. *The European Journal of Development Research, 33*, 1514-1535. https://doi.org/10.1057/s41287-020-00298-5

Obeng-Amponsah, W., & Owusu, E. (2023). Foreign direct investment, technological transfer, employment generation and economic growth: New evidence from Ghana. *International Journal of Emerging Markets*. Advance online publication. https://doi.org/10.1108/IJOEM-02-2022-0200

Pesaran, M.H., Shin, Y., & Smith, R.J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics, 16*(3), 289-326. https://doi.org/10.1002/jae.616

Razzaq, A., Fatima, T., & Murshed, M. (2023). Asymmetric effects of tourism development and green innovation on economic growth and carbon emissions in Top 10 GDP countries. *Journal of Environmental Planning and Management, 66*(3), 471-500. https://doi.org/10.1080/09640568.2021.1990029

Ren, T., Can, M., Paramati, S.R., Fang, J., & Wu, W. (2019). The impact of tourism quality on economic development and environment: Evidence from Mediterranean countries. *Sustainability, 11*(8), Article 2296. https://doi.org/10.3390/su11082296

Renfors, S.M., Veliverronena, L., & Grinfelde, I. (2020). Developing tourism curriculum content to support international tourism growth and competitiveness: An example from the central Baltic area. *Journal of Hospitality & Tourism Education, 32*(2), 124-132. https://doi.org/10.1080/10963758.2019.1654889

Roudi, S., Arasli, H., & Akadiri, S.S. (2019). New insights into an old issue–examining the influence of tourism on economic growth: Evidence from selected small island developing states. *Current Issues in Tourism, 22*(11), 1280-1300. https://doi.org/10.1080/13683500.2018.1431207

Santamaria, D., & Filis, G. (2019). Tourism demand and economic growth in Spain: New insights based on the yield curve. *Tourism Management, 75*, 447-459. https://doi.org/10.1016/j.tourman.2019.06.008

Sarpong, F.A., Boubacar, S., Nyantakyi, G., Cobbinah, B.B., Owusu, E.A., & Ahakwa, I. (2024). Exploring the optimal threshold of FDI inflows for carbon-neutral growth in Africa. *Environmental Science and Pollution Research, 31*, 2813–2835. https://doi.org/10.1007/s11356-023-31169-1

Seghir, G.M., Mostéfa, B., Abbes, S.M., & Zakarya, G.Y. (2015). Tourism spending-economic growth causality in 49 countries: A dynamic panel data approach. *Procedia Economics and Finance, 23*, 1613-1623. https://doi.org/10.1016/S2212-5671(15)00402-5

Shah, C., Trupp, A., & Stephenson, M.L. (2022). Deciphering tourism and the acquisition of knowledge: Advancing a new typology of 'Research-related Tourism (RrT)'. *Journal of Hospitality and Tourism Management, 50*, 21-30. https://doi.org/10.1016/j.jhtm.2021.12.003

TOURISM
An International Interdisciplinary Journal

Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram
From Tourism to Investments, Tracing Economic Footprints, Thailand
Vol. 72/ No. 4/ 2024/ 538 - 550

549

Shahbaz, M., Solarin, S.A., Azam, M., & Tiwari, A.K. (2020). Tourism-induced income distribution in Malaysia: A practical experience of a truly Asian economy. *Current Issues in Tourism, 23*(23), 2910-2929. https://doi.org/10.1080/13683500.2019.1697648

Sokhanvar, A. (2019). Does foreign direct investment accelerate tourism and economic growth within Europe? *Tourism Management Perspectives, 29*, 86-96. https://doi.org/10.1016/j.tmp.2018.10.005

Sokhanvar, A., & Jenkins, G.P. (2022). Impact of foreign direct investment and international tourism on long-run economic growth of Estonia. *Journal of Economic Studies, 49*(2), 364-378. https://doi.org/10.1108/JES-11-2020-0543

Soylu, Ö.B., Adeleye, B.N., Okur, F., & Emikönel, M. (2023). Tourism and FDI-growth nexus in upper-middle income countries: Evidence from static and dynamic panel analyses. *Tourism: An International Interdisciplinary Journal, 71*(1), 162-177. https://doi.org/10.37741/t.71.1.10

TAT News. (2022, December 10). Amazing Thailand 10 million celebrations at Suvarnabhumi Airport 2022. *TAT News*. https://www.tatnews.org/2022/12/thai-pm-chairs-amazing-thailand-10-million-celebrations-at-suvarnabhumi-airport/

TAT News. (2023, May 15). Amazing Thailand culinary city project to boost gastronomy tourism 2023. *TAT News*. https://www.tatnews.org/2023/05/tat-launches-amazing-thailand-culinary-city-project-to-boost-gastronomy-tourism/

Thailand Board of Investment. (2023). *Thailand rankings*. https://www.boi.go.th/index.php?page=thailand_rankings

Tufail, S., Sherbaz, S., & Rafi, T. (2023). Tourism trade balance and globalization: Investigating heterogeneities across income groups. *Tourism: An International Interdisciplinary Journal, 71*(3), 472-491. https://doi.org/10.37741/t.71.3.3

Udemba, E.N. (2019). Triangular nexus between foreign direct investment, international tourism, and energy consumption in the Chinese economy: Accounting for environmental quality. *Environmental Science and Pollution Research, 26*(24), 24819-24830. https://doi.org/10.1007/s11356-019-05542-y

United Nations Trade and Development. (2022). *World investment report*. https://unctad.org/publication/world-investment-report-2022

Wei, Z., Han, B., Pan, X., Shahbaz, M., & Zafar, M.W. (2020). Effects of diversified openness channels on the total-factor energy efficiency in China's manufacturing sub-sectors: Evidence from trade and FDI spillovers. *Energy Economics, 90*, Article 104836. https://doi.org/10.1016/j.eneco.2020.104836

World Development Indicators. (2023). *World Bank open data*. World Development Indicators database. https://data.worldbank.org/

World Tourism Organization. (2020). *International tourism highlights, 2020 edition*. World Tourism Organization. https://www.e-unwto.org/doi/pdf/10.18111/9789284422456

TOURISM
An International Interdisciplinary Journal

Saqib Mehmood / Rudsada Kaewsaeng-on / Tahira Iram
From Tourism to Investments, Tracing Economic Footprints, Thailand
Vol. 72/ No. 4/ 2024/ 538 - 550

550