Saira Tufail / Sadia Sherbaz / Tanzila Rafi

Tourism Trade Balance and Globalization: Investigating Heterogeneities Across Income Groups

Abstract

This study investigated the relationship between the tourism trade balance and globalization. We developed a novel and encompassing approach to measuring the tourism trade balance, including several inflows and outflows. The responsiveness of the tourism trade balance is examined not only for globalization processes depicted by indicators like de facto economic, social, and political globalization but also for globalization policies, i.e., de jure globalization. A comparative analysis across countries - belonging to different income groups, different quartiles of the tourism trade, globalization, and economic growth - revealed considerable heterogeneities among the other grouping of countries for the tourism-globalization relationship. The study suggested that it is of utmost importance to recognize that countries with a high level of globalization and well-developed tourism industry are in a better position to materialize the benefits of globalization.

Keywords: tourism trade, de facto globalization, de jure globalization, exchange rate, law and order, income classifications

1. Introduction

In the last few decades, the importance of tourism activities has increased, and tourism has become one of the fastest-growing industries. The World Travel and Tourism Council (WTTC, 2019) estimated that the direct contribution of tourism to GDP would maintain an annual growth rate of 3.8 per cent over the next decade. This tourism growth is expected to have a sizable multiplier impact on the economy as it facilitates high growth (Gwenhure & Odhiambo, 2017) through job creation and infrastructure development. Furthermore, Trebicka (2016) reported that tourism growth has remarkable potential for maintaining the balance of payment stability as, in recent years, tourism has been the most crucial sector in the service trade, accounting for about 25 per cent of total international trade in services and ranking first in the world.

Despite the substantial growth at the world level, countries have experienced uneven tourism growth and, consequently, significant disparities in materializing the benefits of tourism development (Lopes et al., 2020). It is observed that countries with improvement in tourism trade balance have been the primary beneficiaries of the multiplier effect generated by tourism growth. The heterogeneity in tourism trade balance among the countries is attributed to several factors, including but not limited to economic and infrastructure development, financial systems, and law and order situation. Quite recently, globalization has attracted considerable importance as a driving force for worldwide tourism growth and cross-country heterogeneity in the tourism trade balance.

According to the United Nations World Tourism Organization (UNWTO, 2019) and Fereidouni et al. (2014), substantial tourism growth is inextricably linked with globalization. Tourism and globalization are part and parcel of the same complex and interconnected processes (Urry, 2002). Globalization is the main

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driving force behind the rapid social, political, and economic changes shaping modern societies and the world order (Held et al., 1999). It is multifaceted, and its benefits penetrate the tourism industry through all its vital dimensions, that is, economic, social, and political globalization (Friedman, 1999).

Economic globalization, which refers to the increasing interdependence of the economies across the world, encourages the cross-border flow of goods and services (Dwyer, 2015) and hence, promotes travelling inter and intra-regionally (Suresh et al., 2011; Fereidouni et al., 2014; Javid & Katircioglu, 2017; Kulendran & Wilson, 2000). Cultural globalization extends social networks geographically by transmitting values, culture, and ideas that further encourage international connectivity among nations through travelling (Gerkovich, 2005). Finally, political globalization promotes international tourism by ensuring strong political security in destinations (Dwyer, 2015; Mihajlović & Krželj-Čolović, 2014).

Globalization may also generate considerable heterogeneity in tourism growth among countries due to its differential impact on the tourism trade balance. By stimulating competitiveness and removing barriers in market entry, globalization may improve the tourism trade balance of countries (Chiu et al., 2020) that have gained comparative advantage and specialization in tourism services and have a socio-economic environment conducive to tourism growth. However, at the same time, it may worsen the tourism trade balance of countries that cannot compete internationally. Moreover, some researchers also believe that due to globalization, the tourism industry has become more sensitive to economic, political, and financial crises (Sinnakkannu & Nassir, 2008; Al-Rjoub, 2011). As different economies are exposed to various political, economic, and financial vulnerabilities, tourism growth becomes uneven across countries in the face of more international integration.

The empirical literature regarding the relationship between globalization and tourism activities is embryonic, with inconclusive evidence. This inconclusiveness has partly arisen due to different indicators used to depict tourism industry growth (mainly tourism expenditures/ receipt or tourist arrivals) and globalization and partly due to the country or group of countries considered for analysis. Given this, the objectives and contributions of this study are as follows.

Firstly, instead of focusing on one indicator of tourism growth, we have adopted a novel holistic approach by considering all kinds of tourism inflows and outflows to construct an index of the tourism trade balance. Tourism inflows depict the extent of inbound tourism, while tourism outflows measure outbound tourism. The tourism trade balance is then computed using inbound and outbound tourism indices. Previous studies (for instance, Fereidouni et al., 2014) have focused primarily on one indicator of tourism activities (mostly tourist arrivals), with Javid and Katircioglu (2017) as an exception who used three indicators separately (tourist arrivals, tourism expenditure, and receipts) to depict tourism development. Our study is an advancement over previous studies as by constructing a tourism trade balance; we can provide a more comprehensive evolution of tourism competitiveness in selected countries.

Second, most of the existing literature has only explored the effects of globalization on tourism development by using a single indicator, which cannot provide a comprehensive analysis. Chiu et al. (2020) have used multifaceted globalization indices for China's economy. We add to the existing literature by considering three vital dimensions of the globalization process and their de facto and de jure components for ascertaining the relative importance of different dimensions of globalization for the tourism trade balance. The de facto and de jure components of each dimension of globalization depict the actual process of globalization and its policy and regulation counterpart, respectively. To the authors' limited knowledge, the present study is pioneering in dismantling the role of globalization activities and policies for tourism growth.

Third, regarding the literature, previous studies have mainly focused on country-specific analysis. Studies with global coverage are scarce; to our knowledge, no study has been conducted comparing heterogeneous groups of countries. To fill this gap, we initially selected 140 countries from the WTTC country ranking of

2019. The chosen countries are then placed in different income groups following the World Bank's country classification of 2019. A comparative analysis of countries is then conducted to examine the heterogeneities or similarities across countries regarding the relationship between tourism trade balance and globalization. It is vital to dismantle the relative importance of different indicators of globalization for tourism growth. The relationship between globalization and tourism trade balance is also compared for data-driven classification of countries regarding tourism trade balance and globalization. The nations are classified into quartiles concerning the tourism trade balance, economic, social, and political globalization, and economic growth. With the hindsight that tourism gains attributed to globalization may not be experienced evenly for all countries, we examined this relationship at different quartiles of trade balance, globalization, and economic growth.

The rest of the paper is organized as follows. Section 2 presents a brief review of the literature. Section 3 presents the data and methodology. Section 4 presents and discusses descriptive and empirical results. Finally, section 5 concludes the paper.

2. Literature review

x Empirical research on tourism growth has recently started considering globalization as an influential determinant. Consequently, there are only a handful of studies on this issue, and no consensus has been built yet regarding the relationship between tourism growth and globalization. Moreover, early studies have relied on one or a few indicators for manifesting tourism growth and globalization. For instance, Sugiyarto et al. (2003) discussed the effect of globalization on tourism industry growth in Indonesia by taking trade openness as a measure of globalization while foreign tourist consumption depicts tourism growth. Santana-Gallego et al. (2011) also adopted the same standard of globalization and found it insignificant for tourist arrivals in the short run while significant in the long run. The insignificance of globalization for tourism growth was also reported by Ivanov and Webster (2013) for a panel of 167 countries.

Fereidouni et al. (2014) analyzed the relationship between indicators of globalization and inbound tourism in the Middle East North Africa (MENA) region. The results indicated that globalization promoted tourist arrivals in the MENA countries. The research suggested that policymakers may utilize the relationship between globalization and inbound tourism to promote tourism growth. Javid and Katircioglu (2017) is a notable contribution. They explored the impact of economic, social, and political globalization on tourism development measured through tourism expenditure, tourism receipts, and tourist arrivals. The study applied different panel data regression approaches for 133 countries and showed that all indicators of globalization positively and significantly impact tourism development.

The literature review depicts the absence of empirical evidence on the relationship between different de facto and de jure measures of globalization and tourism trade balance incorporating different dimensions of inbound and outbound tourism. The existing literature also highlights the study's contribution in comparing heterogeneous groups in countries where heterogeneity is captured through income, degree of globalization, the extent of tourism trade balance and economic growth.

3. Data and methodology

3.1. Model

This section provides the framework to evaluate the impact of different dimensions of globalization along with their de facto and de-jure components on the tourism trade balance. The conceptual framework of the study is presented in Figure 1.

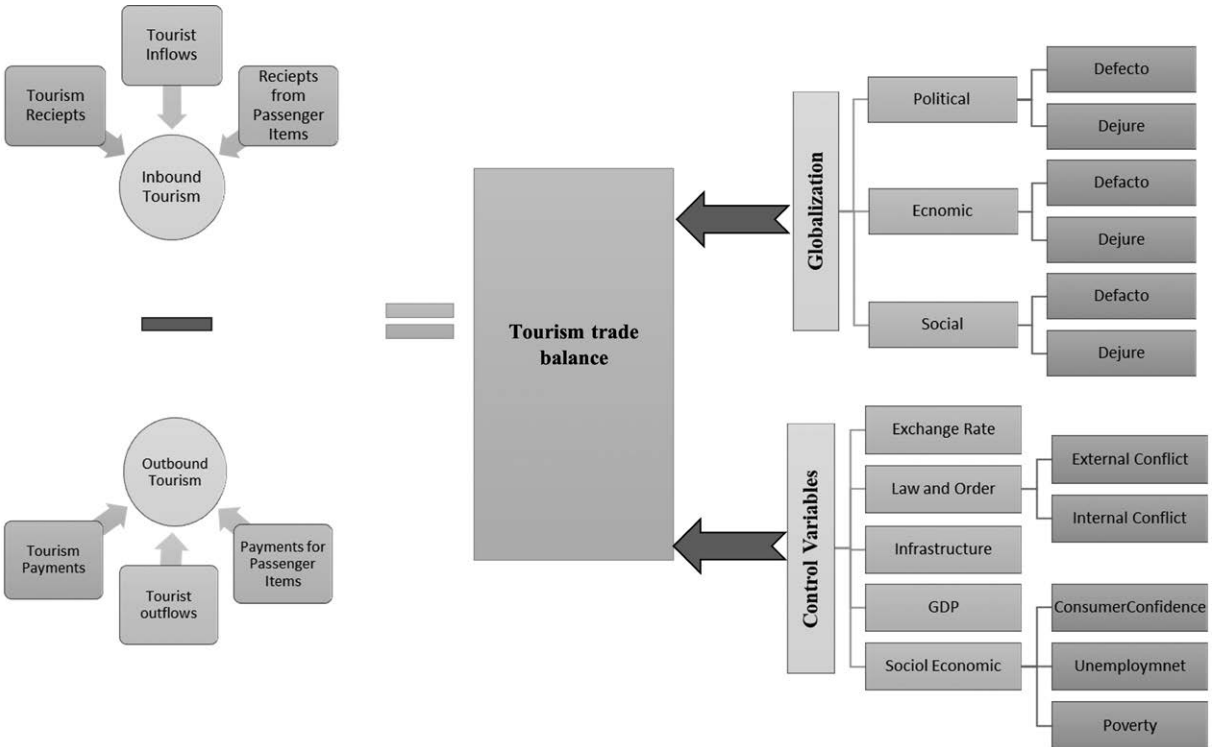
Our model uses a novel approach for measuring the tourism trade balance. Inbound tourism is estimated through tourist arrivals, tourism receipts, and receipts from passenger items. These three indicators together

capture not only the footfall of foreign tourists on national soil but also the economic activity generated by them. Similarly, on the other end, outbound tourism factors in tourist outflows and money spent during trips abroad for travel and purchase of goods and services. The tourism trade balance is calculated by subtracting the outbound tourism index from inbound tourism.

Globalization and its three constituents, namely, political, economic, and social globalization, will affect the tourism trade balance through varying dynamics. Political globalization not only creates goodwill internationally but also results in the facilitation of both inbound and outbound tourists through the presence of embassies, tourism initiatives, and reputation mechanisms. Economic globalization is expected to enhance both inbound and outbound tourism through improved access to financial resources and the availability of goods and services worldwide. Further, greater economic integration with the world will facilitate tourist mobility. Finally, social globalization is instrumental in increasing inbound tourism by effective campaigning and publicity of local culture, and greater civil liberties add to the ease of travelling within nations.

On the other hand, the local population's access to the internet and television allows them access to information about different parts of the world, encouraging outbound tourism. Therefore, the effect of globalization on the tourism trade balance remains theoretically ambiguous. If this effect is higher for inbound tourism, then there will be an improvement in the tourism trade balance. However, the trade balance will decline if it is more pronounced for outbound tourism.

Figure 1
Conceptual framework



Symbolically, the general form of the model is given as follows.

$$TTB_{it} = f(Gl_{it}, X_{it}) \quad (1)$$

Equation 1 shows that tourism trade balance (TTB) is the function of globalization (Gl) and other control variables (X) where Gl and X are vectors of globalization-related and control variables presented as follows.

$$Gl = \begin{bmatrix} OGL \\ SOGL \\ ECGL \\ POGL \end{bmatrix} \; OGL = \begin{bmatrix} DfOGL \\ DjOGL \end{bmatrix} \; SOGL = \begin{bmatrix} DfSOGL \\ DjSOGL \end{bmatrix} \; ECGL = \begin{bmatrix} DfECGL \\ DjECGL \end{bmatrix} \; POGL = \begin{bmatrix} DfPOGL \\ DjPOGL \end{bmatrix} \; X = \begin{bmatrix} EG \\ SC \\ LAO \\ OER \\ INFR \end{bmatrix}$$

Given the above vectors of variables, the following set of equations is estimated to analyze the relationship between globalization and the tourism trade balance.

$$TTB_{it} = \alpha_0 + \alpha_1 EG_{it} + \alpha_2 SC_{it} + \alpha_3 LAO_{it} + \alpha_4 OER_{it} + \alpha_5 INFR_{it} + \alpha_6 OGL_{it} + u_{it} \quad (2)$$

$$TTB_{it} = \beta_0 + \beta_1 EG_{it} + \beta_2 SC_{it} + \beta_3 LAO_{it} + \beta_4 OER_{it} + \beta_5 INFR_{it} + \beta_6 DfOGL_{it} + \beta_6 DjOGL_{it} + v_{it} \quad (3)$$

$$TTB_{it} = \gamma_0 + \gamma_1 EG_{it} + \gamma_2 SC_{it} + \gamma_3 LAO_{it} + \gamma_4 OER_{it} + \gamma_5 INFR_{it} + \gamma_6 SOGL_{it} + \gamma_7 ECGL_{it} + \gamma_8 POGL_{it} + \vartheta_{it} \quad (4)$$

$$TTB_{it} = \delta_0 + \delta_1 EG_{it} + \delta_2 SC_{it} + \delta_3 LAO_{it} + \delta_4 OER_{it} + \delta_5 INFR_{it} + \delta_6 DfSOGL_{it} + \delta_7 DjSOGL_{it} + \gamma_8 DfECGL_{it} + \gamma_8 DjECGL_{it} + \gamma_9 DfPOGL_{it} + \gamma_{10} DjPOGL_{it} + \mu_{it} \quad (5)$$

where

TTB_{it} = Tourism Trade Balance

EG_{it} = Economic Growth

SC_{it} = Socio-economic Conditions

LAO_{it} = Law and Order Situation

OER_{it} = Official Exchange Rate

$ECGL_{it}$ = Economic Globalization

$INFR_{it}$ = Infrastructure Development

OGL_{it} = Overall Globalization

$DfOGL_{it}$ = De-facto Globalization

$DjOGL_{it}$ = De-jure Globalization

$SOGL_{it}$ = Social Globalization

$POGL_{it}$ = Political Globalization

where i denotes 140 countries from the WTTC ranking of 2017. These countries are further classified into four income groups following the World Bank classification of countries, and t represents the period from 1995 to 2017. Finally, the above set of equations is estimated for all income groups.

Theoretically, globalization's impact and its constituents are ambiguous; however, we expect it to vary across income groups. Even though the variety of effects has not been explored, the work of Fereidouni et al. (2014) depicts the varying impact of globalization and its dimensions across individual countries. This gives credence to our expectations that the impact of globalization on tourism trade balance would vary across countries segregated based on income groups. Furthermore, according to Javid and Katircioglu's (2017) findings, social globalization tends to be more effective than economic and political globalization in stimulating tourism development. Further, Knežević (2015) also established the positive effect of globalization on inbound tourism, indicating an improvement in the tourism trade balance.

The selection of control variables has solid theoretical support. For instance, the relationship between economic growth and tourism growth has its roots in the growth-led tourism development hypothesis (Payne & Mervar, 2010; Soofi et al., 2018). Being the leading indicator of the living standards of the country's citizens, it manifests the affordability of recreational activities and the spending capacity of tourists. Therefore, it is expected to increase outbound tourism (Hialager 2007). On the other hand, as an indicator of economic development, it signals the level of facilities provided at the destination and is expected to promote inbound tourism. Therefore, the overall impact of economic growth on the tourism trade balance is ambiguous.

The exchange rate depicts relative tourism price and is expected to affect both inbound and outbound tourism and, resultantly, the tourism trade balance. According to Vojtko et al. (2018), exchange rates are expected to play an essential role in tourism demand analysis, especially at the national level. However, the sensitivity of demand to exchange rate changes may also vary by destination. Depreciation of the exchange rate in the destination country encourages tourist inflows and discourages the influx in the land of origin (Agiomirgianakis et al., 2014). The exchange rate is expected to significantly affect the tourist flows because of its ability to represent the prices of the products and services that are tourist-oriented for international tourists (Uğuz & Topbaş, 2011). De Vita (2014) believes that the depreciation of the national currency may indicate economic instability discouraging inbound tourism and worsening the tourism trade balance. On the contrary, Kim et al. (2016) suggested that exchange rate depreciation may improve the tourism trade balance by enhancing the purchasing power of visiting tourists.

The infrastructure development in the form of investment in travel and transportation services provides access to the destinations. Therefore, improving travel and transport services can expand tourism (Sorupia, 2005). Furthermore, the improved travel and transportation services ease travelling and increase the tourists' interest in tourism. Therefore, transportation management and modes are expected to impact the tourism industry (Culpan, 1987) significantly and positively.

The tourism industry is developing daily and becoming one of the top business industries globally. It generates revenues for many countries, but in some developing countries, uncertain law and order situation hinders the tourist flow in their country. They have beautiful tourist destinations, but they lose this opportunity to earn revenue because of critical conditions of law and order. This crucial situation of law and order in the form of external and internal conflicts, safety issues, and security risks directly influences tourists' decisions (Sonmez & Graefe, 1998; Matakovic, 2020). Hence, it is expected that the demand for tourism will be significantly but adversely affected in the country facing the deteriorating situation of law and order (Theodore & Azmat, 2000). At the same time, though, it is also possible that the security afforded through good law and order may induce individuals to plan foreign trips without worrying about the safety of their family and assets. This may result in a more significant outflow of tourists in case of improved law and order situation.

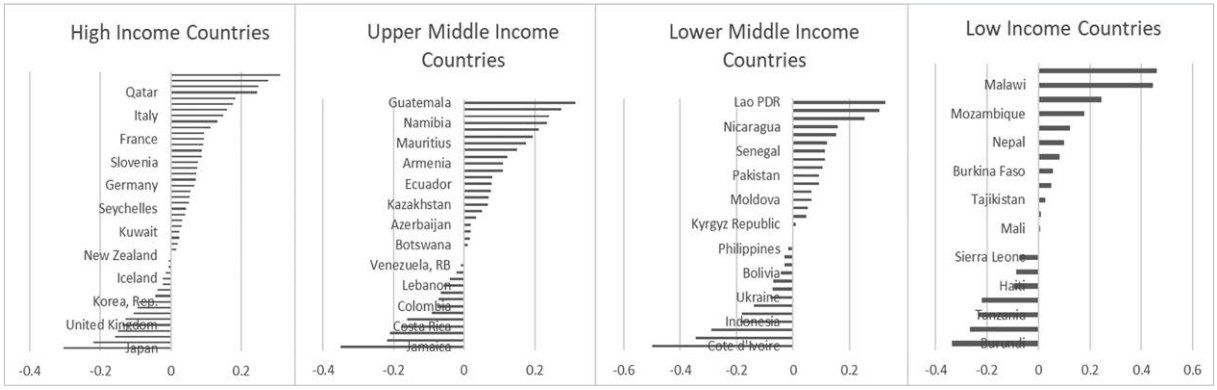
Socioeconomic condition is also considered an essential factor that measures the standard of living of the country's citizens. Furthermore, the improvement and development in the socio-economic conditions enhance tourist attraction which is a critical factor in boosting the tourism demand. Hence, socioeconomic conditions are considered essential in tourism demand, significantly influencing the tourism industry outcomes (Hociung & Francu, 2012).

3.2. Data and variables transformation

To examine the impact of globalization on the tourism trade balance, the panel data on 140 countries of WTTC ranking from 1995 to 2017 has been sourced. In addition, data has been extracted from WDI, KOF index of globalization, ICRG, and WTTC.

This study adopted the methodology of Khan et al. (2017) to construct the inbound and outbound tourism indices. Inbound tourism includes the number of tourist arrivals, tourism receipts for passenger transport, and tourism receipts for travel items. We construct the inbound index for all 140 selected countries using the Principal Component Analysis to combine all these dimensions of inbound tourism. Outbound tourism refers to visits of visitors outside of the country, including the number of departures, expenditure for passenger transport, and expenditure for travel items. All the variables were standardized before the construction of indices. The principal components having eigenvalue greater than unity are used to construct the final index. The difference between inbound and outbound tourism is taken as the measure of the tourism trade balance, which ranges from -1 to 1. Negative values show a deficit, and positive values depict a surplus in the tourism trade. Figure 2 shows the countries ranking concerning their tourism trade balance.

Figure 2
Tourism trade balance



We used the recently revised version of the KOF index of globalization, which contains 43 components for the data on globalization and its indicator. Data for socioeconomic conditions is extracted from ICRG. According to the methodology of ICRG, socioeconomic conditions are measured through the three sub-components: unemployment, consumer confidence, and poverty.

Furthermore, the law-and-order situation is captured through internal and external conflicts. The data for internal and external conflicts are also taken from ICRG. The internal strife has three sub-components: civil war/coup threat, terrorism/political violence, and civil disorder. Similarly, external conflicts included the sub-components: war, cross-border disputes, and civil disease. Table A1 in Appendix A contains all data sources in tabular form. Table 1 below consists of descriptive statistics.

Table 1
Descriptive statistics

Full sample					
Variables	**Obs**	**Mean**	**Std. Dev.**	**Min**	**Max**
Tourism trade balance	2,187	0.021	0.31	-1	1
Overall globalization	3,174	61.34	15.09	22.8	91.3
Social globalization	3,174	57.52	20.21	9.3	92.3
Economic globalization	3,174	57.94	16.49	17.2	95.3
Political globalization	3,174	68.51	18.38	17.9	98.6
Transport infrastructure	2,817	37.31	22.08	0.56	319.57
Log of real GDP	1,993	20.72	1.93	15.76	25.879
Socio-eco condition	2,573	6.45	2.88	0	12
Law and order	2,573	8.20	2.86	0.42	12
Real exchange rate	1,791	101.71	29.73	42.89	740.6139
High-income countries					
Tourism trade balance	803	.021	.288	-1	1
Overall globalization	1,150	74.629	10.973	40.8	91.3
Social globalization	1,150	76.45	10.084	38	92.3
Economic globalization	1,150	72.864	10.959	36.2	95.3
Political globalization	1,150	74.733	20.277	17.9	98.6
Transport infrastructure	1,017	30.027	17.127	2.152	81.239
Log of real GDP	1,150	21.136	1.925	15.761	25.879
Socio-eco condition	1,067	7.413	2.584	1.5	12
Law and order	1,056	8.712	3	2	12
Real exchange rate	918	100.151	14.058	49.509	164.379

Table 1 ***(continued)***

Upper middle-income countries					
Tourism trade balance	671	.023	.287	-1	.897
Overall globalization	851	60.652	9.535	31.6	81.4
Social globalization	851	58.462	11.556	21.6	82.2
Economic globalization	851	54.7	12.73	17.2	85.2
Political globalization	851	68.81	16.019	27.3	93.1
Transport infrastructure	786	46.301	21.77	1.342	319.575
Log of real GDP	843	24.665	1.828	20.707	30.128
Socio-eco condition	667	5.976	2.616	.5	11.5
Law and order	679	7.907	2.847	.417	12
Real exchange rate	413	97.008	40.055	42.897	740.614
Lower middle-income countries					
Tourism trade balance	478	.009	.321	-1	.863
Overall globalization	713	53.311	9.103	22.8	74.9
Social globalization	713	43.519	13.251	12	71.9
Economic globalization	713	49.903	10.1	19.7	70.1
Political globalization	713	66.394	16.599	22.5	93
Transport infrastructure	668	36.208	22.797	.569	95.928
Log of real GDP	736	19.19	1.714	15.712	23.884
Socio-eco condition	531	5.729	3.009	0	12
Law and order	542	7.809	2.745	1.333	12
Real exchange rate	322	101.48	23.19	48.174	272.91
Low-income countries					
Tourism trade balance	235	.048	.419	-1	1
Overall globalization	460	41.865	7.257	23.4	54.7
Social globalization	460	30.2	9.996	9.3	50.9
Economic globalization	460	39.133	9.403	20.4	63
Political globalization	460	55.659	11.565	27.3	78
Transport infrastructure	346	40.479	26.11	.057	98.981
Log of real GDP	455	17.902	.988	15.569	20.405
Socio-eco condition	308	5.415	3.218	.083	11.5
Law and order	296	7.833	2.285	1.25	11.5
Real exchange rate	456	126.665	58.597	65.321	538.373

Figures 3-6 contain the information regarding tourism trade balance for different indicators of globalization and income groups. Again, the overall globalization and its various dimensions are taken on the vertical axis, while the tourism trade balance is taken on the horizontal axis.

3. Empirical methodology

The empirical methodology of the study includes the construction of indices for inbound and outbound tourism as the first step. For this purpose, Principal Component Analysis (PCA) is used. All variables used to construct tourism industry inflows and outflows are standardized. With the identification of principal components by eigenvalues and eigenvectors, those with eigenvalues greater than one are chosen. Indices are then constructed by multiplying the selected elements with the proportions of variation explained. As the last step, the indies are normalized to lie between 0 and one. The variable depicting the tourism trade balance is constructed by taking the difference between tourism inflows and outflows. The measure of the tourism trade balance lies between -1 to 1, where the negative values depict the tourism trade deficit and positive values represent the tourism trade surplus.

Figure 3
Tourism trade balance and overall globalization

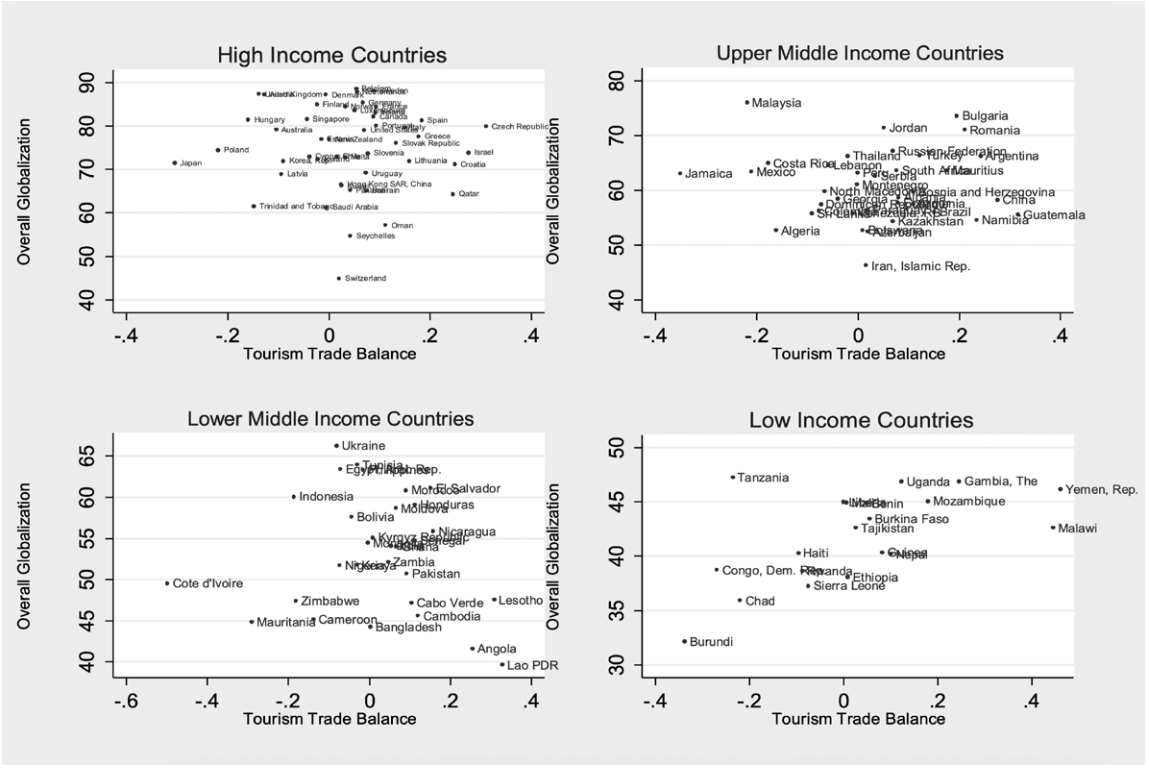


Figure 4
Tourism trade balance and economic globalization

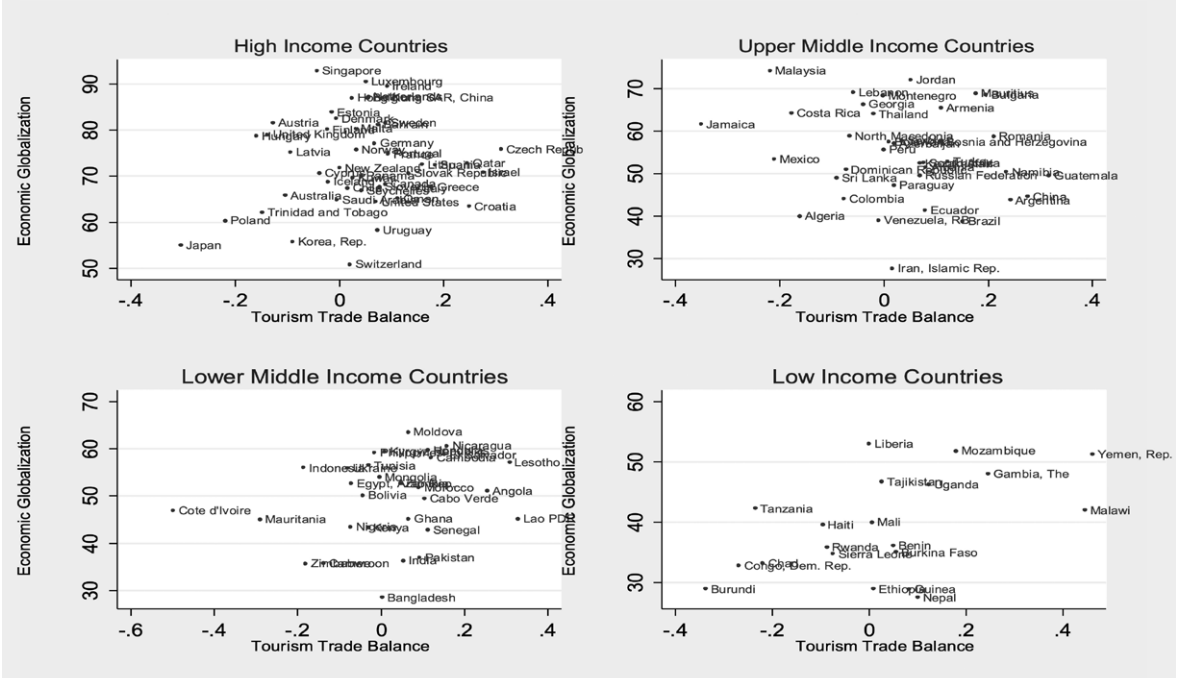


Figure 5
Tourism trade balance and social globalization

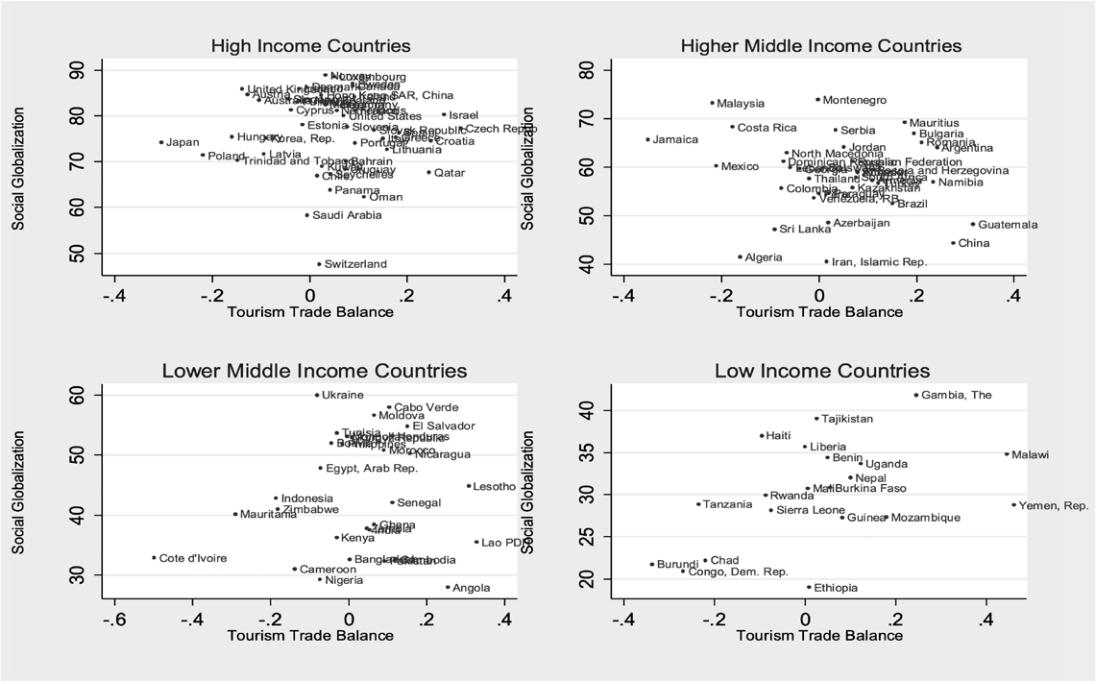
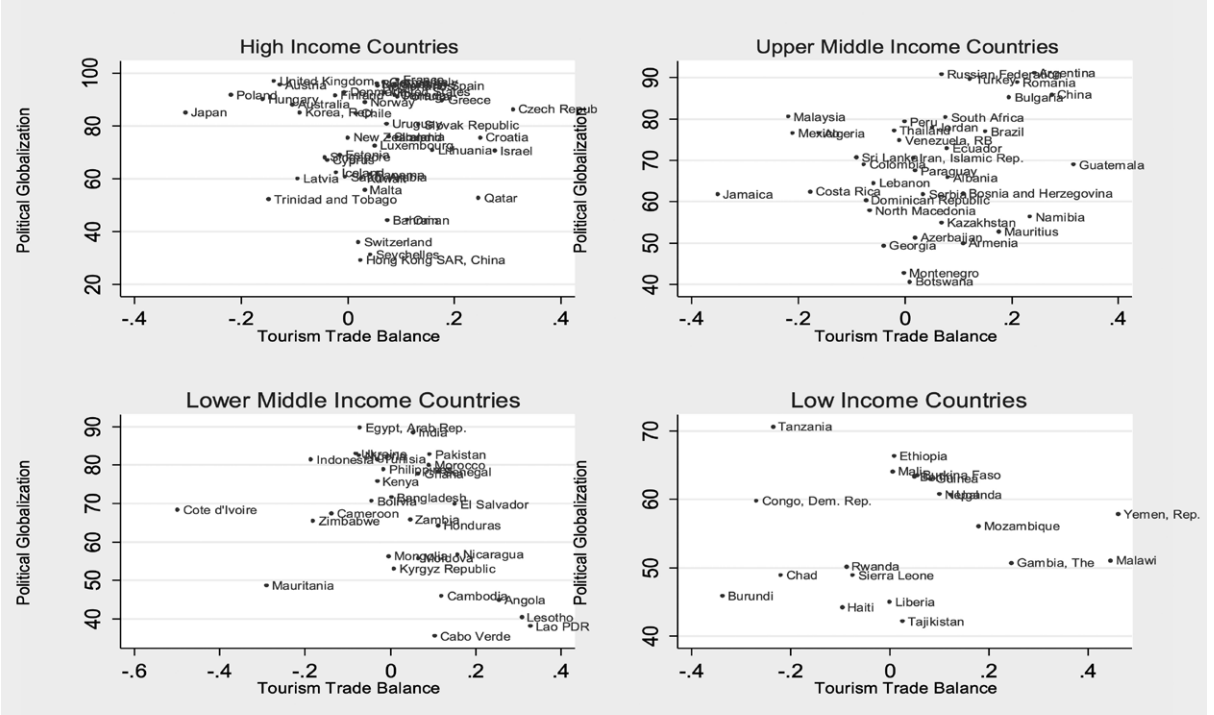


Figure 6
Tourism trade balance and political globalization



The Generalized Method of Moments (GMM) by Anderson and Hsiao (1982) has been applied to examine the impact of globalization and other control variables on the tourism trade balance. The tourism trade balance is constructed using several tourism-related inflows and outflows variables for which the evidence of path dependence is not present in the literature. Due to this, dynamic GMM is not applied, and the lag of the dependent variable is not included in the regression. The choice of technique is due to the endogeneity between globalization and tourism flows. Globalization GDP and socioeconomic are also found endogenous through the Wu-Hausman endogeneity test (reported in tale 2). Hence, all these variables are treated as endogenous and instrumented with their lag values.

4. Results and discussion

Table 2 contains the results of the estimation. OLS and fixed effect estimation techniques are also applied and reported in Appendix B for robustness check. The standard errors in both results are corrected for heteroscedasticity and autocorrelation. The results from different techniques are primarily consistent, hence, robust.

The impact of globalization on the tourism trade balance is consistently positive and significant for all countries and is very much in line with the existing evidence. However, the effect in terms of magnitude is more pronounced for High-Income Countries (HIC) and Upper Middle-Income Countries (UMIC), which alludes to structural differences between these groups that make globalization more effective. These differences may include better security provisions, improved and more flexible tourist mobility, or a greater policy focus on enhancing tourism (Fereidouni et al., 2014; Jena & Dwivedi, 2021). A similar tendency was apparent in the case of the de-facto measure of globalization, i.e., the state of globalization tends to have a significant positive effect on the tourism trade balance. One exception, in this case, is the Lower Middle-Income Countries (LMIC) exhibiting the insignificant impact of de facto globalization. However, the significant positive effect of de jure globalization makes up for this, rendering overall globalization positive and powerful. This result also highlights the relative effectiveness of the globalization strategy for LMICs. Another noteworthy finding is the insignificant negative impact of de jure globalization on the tourism trade balance of UMIC, depressing the overall effect of globalization. However, it remains significant and positive (Knežević, 2015).

For HIC, the impact of social globalization on the tourism trade balance outweighs economic and political globalization. This points to a more culturally tolerant environment, ensuring security and hospitality for foreign tourists in these countries and far-reaching communication technologies translating into a more significant inflow of tourists (Javid & Katircioglu, 2017). This positive tendency is attributed to de facto social globalization's substantial and positive effect. On the other hand, social globalization for UMICs and Lower Income Countries (LICs) is insignificant. This may indicate the uniform impact of social globalization on both tourism outflows and inflows, rendering the tourism trade balance unchanged. This is a more likely scenario for UMICs than LICs, evident from the results that de facto social globalization is improving the tourism trade balance for UMICs, but it is insignificant for LICs.

On the contrary, for LMICs, the coefficient of social globalization is found to be negative and significant. While these results seem counter-intuitive, one can theorize that access to high bandwidth internet and exposure to international cultural products enhances the information set of the local population, giving them insights and inspiration to travel to foreign countries. This dynamic may result in a higher level of outbound tourism.

The coefficient of political globalization is consistently positive for all income groups except for UMICs, for which it is harmful and insignificant. That said, the disaggregated impacts of de facto and de jure political globalization are both significant, with de facto political globalization exerting a negative influence on the tourism trade balance. In contrast, de jure political globalization is depicted to be improving it. Both effects are also at par regarding their absolute magnitudes rendering the overall index of political globalization insignificant. The nature of the indicators used to measure de facto, and de jure globalization may explain

their opposing effects on tourism—the measure of de facto globalization factors in embassies, peacekeeping missions, and membership of international NGOs. Embassies are instrumental in assisting outgoing tourists in foreign countries, resulting in more tourist outflows, especially in HICs and UMICs. The coefficient of de jure measure of political globalization, on the other hand, is positive and significant, which can be attributed to political alliances and diverse trade outreach resulting in more acclaim for the tourist attractions in the country, translating into more tourism inflows. This effect is consistent among all income groups except LMICs, for which it is insignificant. For LMICs effect of de facto political globalization is positive and significant as embassies and participation in peacekeeping missions can help create a more progressive image of the country in terms of safety for the tourists, which may be reflected in tourism inflows exceeding outflows. It is also of note that for LMICs, de facto political globalization is more effective than de-jure globalization.

Table 2
Tourism trade balance and globalization

	HIC	UMIC	LMIC	LIC	HIC	UMIC	LMIC	LIC
Variables	**Coefficients**	**Coefficients**	**Coefficients**	**Coefficients**	**Coefficients**	**Coefficients**	**Coefficients**	**Coefficients**
Globalization	1.012** (0.45)	0.47* (0.28)	0.03** (0.01)	0.05*** (0.009)	-	-	-	-
De-facto	-	-	-	-	0.60* (0.07)	0.60*** (0.17)	0.01 (0.01)	0.02** (0.005)
De-jure	-	-	-	-	0.39 (0.37)	-0.17 (0.484)	0.02** (0.01)	0.06*** (0.01)
Transport infrastructure	0.01** (0.002)	0.01** (0.001)	0.07 (0.06)	0.04 (0.07)	0.01*** (0.001)	0.01** (0.001)	0.08 (0.05)	0.02 (0.07)
Real GDP	-0.16*** (0.05)	-0.16*** (0.03)	0.57** (0.30)	0.25** (0.10)	-0.15*** (0.05)	-0.14*** (0.03)	0.54* (0.26)	0.36*** (0.11)
Socio-eco condition	0.04*** (0.014)	0.02** (0.007)	-0.04* (0.02)	0.01 (0.01)	0.04*** (0.014)	0.01 (0.01)	-0.03* (0.02)	0.004 (0.01)
Law and order	-0.02*** (0.004)	-0.01*** (0.005)	-0.02* (0.01)	-0.03*** (0.01)	-0.02*** (0.004)	-0.01*** (0.005)	-0.02** (0.01)	-0.04** (0.01)
Real exchange rate	1.27*** (0.13)	0.31*** (0.009)	-2.11*** (0.71)	-1.39** (0.47)	1.27*** (0.13)	0.31*** (0.01)	-2.13*** (0.70)	-2.23*** (0.53)
Hansen J-prob	0.28	0.30	0.72	0.96	0.28	0.25	0.59	0.317
F-prob	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Underidentification test (H: The equation is underidentified)	49.56***	108.86***	15.79***	29.86***	49.89***	107.86***	19.16***	28.83***
Wu-Hausman F-test of endogeneity	13.88***	15.09***	18.56**	13.18***	34.01***	34.83***	15.163***	4.69*
Social globalization	1.25*** (0.42)	0.38 (0.48)	-0.03* 0.02)	0.01 (0.01)	-	-	-	-
De-facto	-	-	-	-	1.18*** (0.30)	0.02** (0.008)	-0.021* (0.01)	0.001 (0.01)
De-jure	-	-	-	-	-0.54 (0.41)	-0.005 (0.004)	-0.005 (0.008)	0.01 (0.01)
Political globalization	0.62* (0.35)	-0.03 (0.17)	0.03*** (0.008)	0.01*** (0.004)	-	-	-	-
De-facto	-	-	-	-	-0.07 (0.21)	-0.003** (0.002)	0.02** (0.007)	0.003 (0.003)
De-jure	-	-	-	-	1.24*** (0.33)	0.003** (0.002)	0.006 (0.01)	0.02** (0.01)
Economic globalization	-0.47** (0.23)	0.42*** (0.11)	0.03*** (0.008)	0.02*** (0.005)	-	-	-	-
De-facto	-	-	-	-	-0.19 (0.17)	0.35** (0.15)	0.01 (0.01)	0.02** (0.003)
De-jure	-	-	-	-	-0.26* (0.15)	0.16** (0.08)	0.01** (0.005)	0.02*** (0.005)
Transport infrastructure	0.12** (0.05)	0.01*** (0.001)	0.06 (0.05)	0.04 (0.07)	0.13** (0.05)	0.01*** (0.001)	0.09* (0.05)	0.01 (0.07)
Real GDP	-0.34*** (0.10)	-0.22* (0.13)	0.85** (0.43)	0.31*** (0.13)	-0.37*** (0.11)	-0.33** (0.16)	0.79* (0.43)	0.43*** (0.14)
Socio-eco condition	0.05*** (0.02)	0.02** (0.008)	-0.05** (0.02)	0.01 (0.01)	0.05*** (0.01)	0.02** (0.009)	-0.04** (0.02)	0.006 (0.01)

Table 2 ***(continued)***

	HIC	UMIC	LMIC	LIC	HIC	UMIC	LMIC	LIC
Law and order	-0.02*** (0.005)	-0.02*** (0.006)	0.02* (0.01)	-0.04** (0.01)	-0.02*** (0.006)	-0.02*** (0.006)	-0.02** (0.01)	-0.03* (0.01)
Real exchange rate	1.00*** (0.15)	0.23* (0.13)	-1.43*** (0.52)	-1.11** (0.53)	1.10*** (0.17)	0.21* (0.12)	-1.25** (0.52)	-1.97*** (0.69)
Hansen J-prob	0.14	0.37	0.81	0.95	0.12	0.39	0.83	0.44
F-prob	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Underidentification test (H: The equation is underidentified)	49.27***	33.89***	13.23***	30.19***	39.29***	33.80***	12.41***	26.31***
Wu-Hausman F-test of endogeneity	27.86***	28.72***	30.516***	30.45***	39.39***	32.81***	38.82***	45.86***

Note. Standard errors are in parenthesis.
*, **, *** show significance at 1,5 and 10 %, respectively.

Interestingly despite overall globalization being positive and significant, the coefficient of economic globalization for HICs is negative and significant. This contradicts the widespread belief that the economic integration of developed economies can be conducive to growth compared to other countries in all sectors, including tourism. This result also depicts that more economic globalization for HICs may encourage tourism outflows as economic prosperity would enable locals to opt for exotic foreign tourist locations in the presence of economic integration. On the other hand, UMICs, LMICs, and LICs benefit significantly from improved economic globalization vis-à-vis tourism trade balance, with UMICs performing better than the others (Wong & Tang, 2010). Knežević (2015) identifies tourism as a leading sector of the economy with several backward and forward linkages. The author continues to identify globalization, mainly; investment flows, as the primary stimulant for tourism expansion in developing nations. This outcome supports our results for economic globalization being a boon for tourism in UMICs, LMICs and LICs.

Another interesting observation can be made regarding the effects of de facto and de jure economic globalization. For UMICs, the coefficients of de facto and de jure economic globalization are highest among all groups experiencing the positive effect of economic globalization. Additionally, de facto economic globalization is less effective than de jure economic globalization for all countries. This depicts that the nature of the indicators for de facto and de jure economic globalization is very diverse. De facto economic globalization portrays policy outcomes that may not be instrumental in determining the behavior of incoming or outgoing tourists. One reason for that can be that information regarding these factors is not actively sought while making decisions regarding tourist activity, and these attributes are generally realized after the activity is underway. While de jure economic globalization is presented by policies that are not only permissive towards trade in goods and services, it can also potentially attract tourists by conveying the country's positive image explaining its positive impact for UMICs, LMICs and LICs. While the HICs may benefit from a similar situation, the stimulus due to the citizenry's economic prosperity may encourage outflows more than inflows.

Among control variables, transport infrastructure consistently positively affects the tourism trade balance. However, this factor is more effective for HICs and UMICs. The findings from Pagliara et al. (2019) also conformed to our results, which showed that high-speed transport significantly affects tourist arrival and length of stay. This result reflects the inadequacy of transport infrastructure in LMICs and LICs. The results for real GDP depict a very intriguing situation. For HICs and UMICs, real GDP has a negative and statistically significant effect on tourism trade balances, indicating that national income improvement for these countries is more effective in enabling the citizens to vacation abroad than attracting inbound tourists (Hialager, 2007). This effect, while still significant, is positive in the case of the tourism trade balance for LICs and LMICs. Therefore, we can say that for these groups of countries, GDP is more effective in attracting prospective inbound tourists while at the same time not improving the lot of the local population sufficiently to increase outbound tourism giving credence to the growth-led tourism hypothesis (Payne & Mervar, 2010; Soofi et al., 2018).

It was expected that the impact of socioeconomic conditions would align with the actual GDP results. However, the outcome is quite different from our expectations. The improved socio-economic state tends to enhance the tourism trade balance for HICs and UMICs. This might point to socio-economic conditions like consumer confidence and reduced poverty being more effective in attracting inbound tourists (Hociung & Francu, 2012). The opposite outcome is observed for LMICs, i.e., boosting socio-economic conditions reduces the tourism trade balance, and the coefficient is also statistically significant. Better employment opportunities and poverty reduction (both components of socio-economic conditions) are more effective in encouraging outbound tourism in LMICs. For LICs, socio-economic conditions are ineffective in changing the tourism trade balance.

The coefficient of law and order is found to be significant and negative across the board; it means that reduction in the risk of internal and external conflicts is instrumental in enhancing outbound tourism as it not only ensures personal security but also the safety of family and property, allowing individuals to enjoy greater mobility without fear of loss in their absence.

The actual exchange rate's impact also varies across different income groups. For high and upper-middle-income countries, the exact exchange rate coefficient is positive and statistically significant, which depicts that real exchange rate depreciation provides a more substantial stimulus to inbound tourism by increasing the purchasing power of the incoming tourists (Uğuz & Topbaş, 2011; Kim et al., 2016). For LICs and LMICs, this effect is significant but negative. De Vita (2014) posited that the depreciation of the national currency for developing countries might indicate instability, resulting in a negative reputation mechanism discouraging inbound tourism.

The results of quantile regression are reported in Table 3. The first set presents results for the quartiles of globalization. We can see that the overall level of globalization tends to become more effective for higher quartiles. The impact, however, remains consistently positive to the findings of Fereidouni et al. (2014) and Jena and Dwivedi., (2021). In terms of significance, economic and social globalization depict similar trends but economic globalization for lower quartiles is insignificant and negative. The coefficient of political globalization is statistically significant and positive for all quartiles of globalization. These results suggest that all dimensions of globalization are more effective for higher values of globalization.

The quantile regression for the tourism trade balance depicts that all forms of globalization are insignificant for the lowest quartile. On the contrary, globalization and its dimensions have become more significant and effective in improving the tourism trade balance for higher quartiles of the tourism trade balance. The only exception is economic globalization, which is only substantial for observations in the 3rd quartile, depicting a nonlinear relationship.

The quantile regressions for economic growth depict the consistently significant and positive effect of globalization and its dimensions on the tourism trade balance. The magnitude of impact is higher for social and political globalization relative to that for economic globalization.

Table 3
Tourism trade balance and globalization

Variables	Quartiles of globalization				Quartiles of tourism trade balance				Quartiles of economic growth			
	< 25	25-50	50-75	>75	< 25	25-50	50-75	>75	< 25	25-50	50-75	>75
Globalization	0.019 (0.131)	0.04*** (0.01)	0.04** (0.01)	0.06*** (0.01)	-0.004 (0.01)	0.02*** (0.003)	0.03*** (0.004)	0.04*** (0.006)	0.031*** (0.001)	0.035*** (0.002)	0.035*** (0.002)	0.033*** (0.005)
Economic	-0.04 (0.08)	-0.01 (0.01)	0.03*** (0.006)	0.02*** (0.002)	-0.01 (0.02)	-0.002 (0.006)	0.013** (0.006)	0.007 (0.001)	0.02*** (0.005)	0.01*** (0.003)	0.01*** (0.003)	0.005 (0.004)
Cultural	0.012 (0.013)	0.012 (0.01)	0.03*** (0.01)	0.06*** (0.004)	-0.003 (0.004)	0.003 (0.003)	0.033*** (0.005)	0.030*** (0.004)	0.03*** (0.005)	0.03*** (0.002)	0.03*** (0.002)	0.02*** (0.005)
Political	0.03*** (0.001)	0.03*** (0.007)	0.03*** (0.002)	0.07*** (0.013)	0.02 (0.02)	0.02*** (0.003)	0.02*** (0.003)	0.08*** (0.013)	0.015* (0.01)	0.025*** (0.002)	0.025*** (0.002)	0.024*** (0.005)

Note. Standard errors in parathesis.
*, **, *** depicts significance at 10, 5 and 1 per cent.

5. Conclusion and recommendations

The study has examined the relationship between the tourism trade balance and multiple indicators of the globalization process and policies for countries belonging to different income groups. In addition, further heterogeneities in terms of quartiles of economic growth, globalization, and tourism trade balance have also been considered in determining the central relationship.

The study's findings have highlighted that the tourism trade balance depicts significant heterogeneities across countries concerning different indicators of globalization, asserting that all globalization processes and policies may not help improve tourism growth. Consequently, countries focusing on improving tourism services should globalize in respective dimensions. For example, social and political globalization is more enabling for high-income countries. However, economic globalization exhibits a harmful effect, while low-income economic globalization is more conducive to tourism trade balance while social globalization is insignificant. They emphasize that these two groups of countries require different approaches to globalization, relying on diverse aspects of the process. The desirability of globalization for tourism enhancement is also evident from the fact that at higher levels of globalization, its effectiveness in improving tourism balance also increases.

It is also essential to recognize that countries with high economic growth and well-developed tourism industry are better positioned to materialize globalization's benefits. The results also indicate the need for infrastructure development for all income groups, despite the insignificant variable for LMICs and LICs. This may be due to the inadequacy of transport facilities in developing countries, emphasizing the need for a policy to expand the existing infrastructure at a larger scale. Further, our results also signify the need for peacekeeping efforts across the income groups.

Additionally, to increase trade competitiveness through the depreciation of currencies, LICs and LMICs seem to be communicating troubling signals regarding the state of the political economy, hence, compromising the growth of the tourism industry. This can be avoided by carefully analyzing trade elasticities concerning exchange rates for the merchandise and services sectors. Still, developing countries might also face the tough choice of favoring one industry at the cost of another in following a policy of exchange rate depreciation.

The upshot of the study is multifaceted as the study not only empirically signifies the need to factor in income heterogeneities when determining the effects of globalization on tourism trade but also provides an exciting insight into the diverse implications for de facto and de jure measures of globalization. Furthermore, the study is crucial in understanding the difference, like hindrances in achieving sustained tourism trade across income groups. Further, it makes a case for developing countries to be more cautious when adapting policies implemented in the developed parts of the world.

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Appendix A

Table A1
Dependent variables

Variables	Description	Data source
Inbound tourism / INBT		
TAAR	International tourism, number of arrivals	WDI (2020)
TR	International tourism, receipts (current US$)	WDI (2020)
PTTR	International tourism, receipts for passenger transport items (current US$)	WDI (2020)
TTR	International tourism, receipts for travel items (current US$)	WDI (2020)
Outbound tourism / OUTBT		
TE	International tourism, expenditures (current US$)	WDI (2020)
PTTE	International tourism, expenditures for passenger transport items (current US$)	WDI (2020)
TTE	International tourism, expenditures for travel items (current US$)	WDI (2020)
TD	International tourism, number of departures	WDI (2020)

Table A2
Independent variables

Variables	Description	Data source	Expected sign
GDP	GDP growth	WDI (2020)	
TRX	Travel service (% of service export, BoP)	WDI (2020)	+
TRM	Travel service (% of service import, BoP)	WDI (2020)	+
INF	Inflation, Consumer price (annual %)	WDI (2020)	+/-
REEXR	Real effective exchange rate	WDI (2020)	+/-
SOCIOECCOND	Socio-economic condition	ICRG (2016)	+
INCONF	Internal conflicts	ICRG (2016)	-
EXCONF	External conflicts	ICRG (2016)	-
GI	Overall globalization	KOF index of Globalization (2020)	+
GIdf	Globalization defecto	KOF index of Globalization (2020)	+
GIdj	Globalization dejure	KOF index of Globalization (2020)	+
Ec	Economic globalization	KOF index of Globalization (2020)	+
Ecdf	Economic globalization defecto	KOF index of Globalization (2020)	+
Ecdj	economic globalization dejure	KOF index of Globalization (2020)	+
Cu	Cultural Globalization	KOF index of Globalization (2020)	+
Cudf	Cultural Globalization, de facto	KOF index of Globalization (2020)	+
Cudj	Cultural Globalization, de jure	KOF index of Globalization (2020)	+
Po	Political Globalization	KOF index of Globalization (2020)	+
Podf	Political Globalization, de facto	KOF index of Globalization (2020)	+
Podj	Political Globalization, de jure	KOF index of Globalization (2020)	+

Appendix B

Table B1
Tourism trade balance and globalization (fixed effect estimation)

	HIC	UMIC	LMIC	LIC	HIC	UMIC	LMIC	LIC
Variables	Coefficients	Coefficients	Coefficients	Coefficients	Coefficients	Coefficients	Coefficients	Coefficients
Globalization	0.23** (0.11)	0.13*** (0.03)	0.03** (0.01)	0.03 (0.02)	-	-	-	-
De-facto	-	-	-	-	0.35*** (0.07)	0.10*** (0.003)	0.01 (0.01)	0.01** (0.005)
De-jure	-	-	-	-	0.10 (0.37)	0.01 (0.03)	0.02** (0.01)	0.03 (0.03)
Transport infrastructure	0.01** (0.002)	0.01** (0.001)	0.07 (0.06)	0.01 (0.03)	0.01*** (0.001)	0.01** (0.001)	0.08 (0.05)	0.01 (0.07)
Real GDP	-0.18*** (0.04)	-0.13*** (0.03)	0.20** (0.09)	0.27** (0.10)	-0.17*** (0.04)	-0.13*** (0.04)	0.23* (0.10)	0.23** (0.11)
Socio-eco condition	0.04*** (0.01)	0.07 (0.06)	-0.04* (0.02)	0.01 (0.02)	0.04*** (0.014)	0.01 (0.01)	-0.03* (0.02)	0.01 (0.02)
Law and order	0.01 (0.029)	-0.03 (0.02)	-0.02* (0.01)	-0.09*** (0.01)	0.01 (0.02)	-0.03* (0.02)	-0.02** (0.01)	-0.09** (0.01)
Real exchange rate	0.69*** (0.23)	0.11*** (0.009)	-2.11*** (0.71)	-2.32** (0.78)	0.68*** (0.23)	0.9 (0.9)	-2.13*** (0.70)	-2.60*** (0.91)
R-squared	0.12	0.10	0.40	0.46	0.14	0.10	0.59	0.46
F-prob	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hausman chi-square-test of fixed effect/random effect	8.46**	9.49**	16.47***	10.18***	9.59**	14.83***	16.63***	14.69***
Social globalization	0.20*** (0.09)	0.38 (0.48)	-0.01 (0.02)	0.01 (0.01)	-	-	-	-
De-facto	-	-	-	-	0.18*** (0.03)	0.04 (0.04)	-0.021* (0.01)	0.001 (0.01)
De-jure	-	-	-	-	-0.14 (0.41)	-0.01* (0.004)	-0.005 (0.008)	0.02 (0.01)
Political globalization	0.6* (0.35)	-0.03 (0.17)	0.01 (0.02)	0.01*** (0.001)	-	-	-	-
De-facto	-	-	-	-	-0.05*** (0.001)	-0.003** (0.002)	0.02** (0.007)	0.004 (0.01)
De-jure	-	-	-	-	0.17*** (0.03)	0.01*** (0.002)	0.006 (0.01)	0.01** (0.001)
Economic globalization	-0.10** (0.002)	0.42*** (0.11)	0.09*** (0.02)	0.02 (0.01)	-	-	-	-
De-facto	-	-	-	-	-0.05*** (0.01)	0.08** (0.001)	0.01 (0.01)	0.01** (0.003)
De-jure	-	-	-	-	-0.06*** (0.001)	0.04** (0.002)	0.01** (0.005)	0.01*** (0.005)
Transport infrastructure	0.12** (0.05)	0.01*** (0.001)	0.06 (0.05)	0.02 (0.07)	0.13** (0.05)	0.01*** (0.001)	0.09* (0.05)	0.01 (0.07)
Real GDP	-0.40*** (0.05)	-0.22* (0.13)	0.20** (0.9)	0.27** (0.13)	-0.45*** (0.05)	-0.65*** (0.16)	0.23* (0.12)	0.21*** (0.14)
Socio-eco condition	0.01 (0.02)	0.02** (0.008)	-0.05** (0.02)	0.02 (0.01)	0.05 (0.05)	0.02** (0.009)	-0.04** (0.02)	0.006 (0.01)
Law and order	-0.01*** (0.005)	-0.02*** (0.006)	0.02* (0.01)	-0.09** (0.01)	-0.02*** (0.006)	-0.02*** (0.006)	-0.02** (0.01)	-0.03* (0.01)
Real exchange rate	0.77*** (0.22)	0.23* (0.13)	-1.73** (0.52)	-2.31*** (0.23)	0.81*** (0.17)	0..86*** (0.12)	-1.25** (0.52)	-3.21** (1.6)
R-squared	0.14	0.10	0.40	0.46	0.18	0.11	0.83	0.47
F-prob	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hausman chi-square test of fixed effect/random effect	9.2**	8.95*	14.25***	10.91***	9.59**	13.89***	16.41***	16.13***

Note. Standard errors are in parentheses.
*, **, *** show significance at 1,5 and 10 %, respectively.

Table B2
Tourism trade balance and globalization (pooled OLS estimation)

	HIC	UMIC	LMIC	LIC	HIC	UMIC	LMIC	LIC
Variables	Coefficients	Coefficients	Coefficients	Coefficients	Coefficients	Coefficients	Coefficients	Coefficients
Globalization	0.13* (0.07)	0.10 (0.08)	0.13** (0.45)	0.02*** (0.001)	-	-	-	-
De-facto	-	-	-	-	0.20* (0.10)	0.28*** (0.09)	0.13 (0.30)	0.02** (0.001)
De-jure	-	-	-	-	-0.1 (0.63)	-0.26** (0.13)	0.39 (0.30)	0.06*** (0.01)
Transport infrastructure	0.01** (0.0006)	0.002*** (0.0007)	0.01 (0.06)	0.07*** (0.01)	0.02*** (0.0006)	0.01** (0.001)	0.08* (0.05)	0.02 (0.07)
Real GDP	-0.016*** (0.05)	-0.002 (0.008)	0.02** (0.003)	0.3*** (0.02)	-0.02*** (0.006)	-0.14*** (0.03)	0.02** (0.003)	0.36*** (0.11)
Socio-eco condition	0.001*** (0.005)	0.02** (0.007)	0.04* (0.02)	0.01 (0.01)	0.04*** (0.014)	0.01 (0.01)	0.01* (0.02)	0.004 (0.01)
Law and order	-0.01*** (0.002)	-0.02* (0.01)	-0.02* (0.01)	-0.08*** (0.01)	-0.01*** (0.002)	-0.04*** (0.005)	-0.02** (0.01)	-0.04** (0.01)
Real exchange rate	0.04*** (0.02)	0.03*** (0.009)	-0.29*** (0.1)	-1.39** (0.47)	0.1** (0.02)	0.07*** (0.01)	-0.21*** (0.04)	-2.23*** (0.53)
Adjusted R square	0.10	0.10	0.10	0.30	0.10	0.10	0.10	0.3
F-prob	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Social globalization	0.05 (0.12)	0.26*** (0.07)	-0.07*** (0.02)	0.01 (0.01)	-	-	-	-
De-facto	-	-	-	-	0.40*** (0.13)	0.01*** (0.001)	-0.02 (0.01)	0.001 (0.01)
De-jure	-	-	-	-	-0.44 (0.13)	-0.005 (0.004)	-0.02 (0.01)	0.01 (0.01)
Political globalization	0.02 (0.05)	-0.21*** (0.08)	0.09*** (0.02)	0.01*** (0.004)	-	-	-	-
De-facto	-	-	-	-	-0.09 (0.06)	-0.001 (0.002)	0.02** (0.007)	0.003 (0.003)
De-jure	-	-	-	-	0.19*** (0.33)	0.001 (0.002)	-0.01** (0.006)	0.02** (0.01)
Economic globalization	-0.02 (0.07)	0.10 (0.11)	0.06*** (0.02)	0.02*** (0.005)	-	-	-	-
De-facto	-	-	-	-	-0.01 (0.1)	0.01 (0.01)	0.01** (0.006)	0.02** (0.003)
De-jure	-	-	-	-	-0.13** (0.07)	0.01** (0.001)	0.007 (0.006)	0.02*** (0.005)
Transport infrastructure	0.003*** (0.0007)	0.01*** (0.0007)	0.03*** (0.005)	0.04 (0.07)	0.003** (0.0007)	0.01*** (0.001)	0.02** (0.007)	0.01 (0.07)
Real GDP	-0.01 (0.01)	-0.01 (0.13)	0.05 (0.04)	0.31*** (0.13)	-0.02** (0.009)	-0.02** (0.01)	0.078 (0.19)	0.04*** (0.14)
Socio-eco condition	0.01 (0.05)	0.02** (0.008)	0.01 (0.02)	0.01 (0.01)	0.05*** (0.01)	0.02 (0.02)	0.04** (0.02)	0.006 (0.01)
Law and order	-0.01*** (0.002)	0.01 (0.01)	-0.03*** (0.01)	-0.04** (0.01)	-0.01** (0.002)	-0.02*** (0.006)	-0.02** (0.01)	-0.03* (0.01)
Real exchange rate	0.1*** (0.02)	0.04*** (0.01)	-0.34*** (0.20)	-0.27*** (0.05)	0.07*** (0.02)	0.04*** (0.01)	-0.78** (0.31)	-0.90*** (0.09)
Adjusted R-square	0.10	0.10	0.30	0.30	0.10	0.10	0.30	0.30
F-prob	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note. Standard errors are in parenthesis.
*, **, *** show significance at 1,5 and 10 %, respectively.

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