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Tourism, Trade and Self-employment growth in West Africa: Evidence from Ghana, Nigeria and Cote d'Ivoire

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Abstract :

This study attempts to evaluate the relationship between tourism and trade and self-employment growth in Ghana, Nigeria and Cote d'Ivoire using a time series data spanning the period 1991-2019. In this study, applied GMM approach is employed. Results show that export and import trade, development assistance and personal remittance flows significantly spur self-employment during the study period while indicators of tourism activities represented by the number of tourist arrivals retard growth of self-employment but increases export trade in these countries. On this basis, the business atmosphere and infrastructural facilities should be improved to sufficiently boost the relationship between trade and tourism and hence spur self-employment growth in these countries.

Keywords: Tourism, Trade, Self-employment, GMM.

JEL Codes: Z30, F10, J21.

1. Introduction

For developing countries such as Nigeria, tourism serves as a means of generating income and remains key contributor to the economic size and a catalyst for backward and forward linkages. From the global

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macroeconomic views, tourism facilitates people's movement across international borders on a yearly basis and has been regarded as the world's growth engines through globalization of goods and services, increasing leisure time, technological and transport revolution and encouraging middle classes. Besides among the tourism entrepreneurship economic benefits include income generation through taxes levied on tourists, foreign exchange earnings, easing balance of payment problems, economic diversification and employment generations within rural and remote areas (Ekanayake & Long, 2012). So far, tourism sector provides one-tenth of worldwide GDP and employment and aside from chemicals and fuel, it is the third largest sector in the world (UNWTO, 2018). International tourism has experienced improvement towards the second half of the 20th century and early in 21st century despite the emergence of obstacles including terrorists' activities, natural disasters, and growing health hazards. In the 1950s, 100% of tourism flows was linked to 15 countries and by the 20th century, tourism became part of the trade balances of many countries and at a point, top 15 countries accounted for just 60% of all international flows.Webster, A., Fletcher J., & Hardwick, P. (2007) emphasise intra-industry trade (IIT) through a multi-country analysis and observe that Indonesia, Sri Lanka, Greece, and Mexico had the highest IIT alongside with some developed economies. Some developed economies such as Japan and Germany are identified with the lowest values of IIT. It is therefore plausible to assume a relationship between international tourism and trading in goods as it facilitates increase in international trade since goods can be transported from and to the destinations of interest (Tsui & Fung, 2016). At the global level, tourism accounts for approximately 10% of the gross domestic product (GDP) translating to about US$7.5 trillion and can bring about 1 out of 11 jobs. Economic significance of tourism is linked partly to the upcoming sustainable development goals of 2030 and is seen as a pointer to major development tool for poverty alleviation and sustainable development (González, 2017). As at 2014, the total earnings by the LDCs in exports from international tourism reached US$16.4b translating to about 7% of the total exports. This therefore gives the LDCs competitive options in taking part in the global economic relations. In the same vein, Trade contributes to tourism development through increasing integration between countries which results in investment in infrastructure such as transportation, linguistics and technology thereby making travel much easier and interesting (Chaisumpunsakul & Pholphirul, 2018; Santana-Gallego et al., 2011).

Despite many positive externalities tourism business brings to

participating countries, it is not without some demerits. In Africa just as every other parts of the world, the level of mistrust among participating agents such as various smuggling acts, engagements in illegal activities etc., expose the countries into external attacks in the form of travel bans and warnings. Several movements abroad have been made through illegal means without necessary travel document and such attempts have led to untimely deportation thereby defeating the tourism trade ambition. This subsequently retards economic progress that would have been made through tourists' activities. Based on World Development Indicator database, Trade share in total GDP between 1960 and 2019 has been below expectation to drive tourism positive intervention into the economies of Cote d'Ivoire, Ghana and Nigeria with respective 32.6%, 31.4% and 14.4% of their respective GDP.In 2015-2017, Cote d'Ivoire receipts from tourists' activities amounted to 1.75% of the total export, and 9.94% of the total exports for Ghana during 1995-2018; while Nigeria received 1.25% for same period as Ghana.These low levels of receipts appeared insufficient to facilitate tourism related employment activities including hoteling, accommodation, business trips and self-employment share in total employment.During 1991 -2019, Ghana only had an average of 5.10% employers' total share in total employment being the highest, followed by Nigeria recording an average of 3.53%.Similarly, trade integration which can boost infrastructural development including transportation; technology etc. to foster tourism activities within these countries is still low. Besides, interaction between trade and tourism activities is yet to sufficiently boost employment as expected going by the statistics above. The current research becomes highly motivated going by the economic significance of tourism in boosting employment opportunities for which trade also becomes germane. Besides, the tourism is also given a top consideration in the sustainable development plan of 2030; hence it becomes relevant to further improve trade integration to further boost tourist attraction and employment growth. Subsequently, in this paper, the objectives are to examine the trade –tourism relationship and the employment effect of trade and tourism in Cote d'Ivoire, Ghana and Nigeria.

2. Literature review

As a good guide on tourism entrepreneurship business, earlier literature surveys have come up with various issues relating to tourism entrepreneurship (Bryon, 2012); Entrepreneurship as a drive towards making tourism business benefits (Taskov, Metodijeski, Dzaleva, &

Filipovski, 2011); tourism entrepreneurship as a factor enhancing development of social life of social communities and touristic services (Rusu, Isac, & Cureteanu, 2016).The consequence of neoliberal policies and globalization is that export should be a major strategy for in many developing countries (Bhagwati, 1978) and hence policies for implementation of trade increase became necessary. These policies including (facilitating human and property mobility, simplifying border operations, etc. among others also stimulate tourism development.

Researchers have identified the role of international trade theory in the economics of tourism over time. Sinclair and Stabler (1997) among others, evaluate the relevance of comparative advantage theory to international specialization in tourism entrepreneurship. Besides, they also discuss the role trade theories for example those of intra-industry trade relating to imperfect competition, product differentiation and scale economies play in tourism business.

In the export-led growth (ELG) theory framework, tourism enhances the existence of new models because it involves goods and service conventionally not traded at the international level. In line with this, tourism-led growth theory (TLG) is therefore given more recognition (Balaguer & Cantavella-Jorda, 2002). Compared to the ELG, TLG plays very relevant roles in underdeveloped countries on the basis that it gives recognition to opportunities such as natural and cultural beauties which seem not unique in the developed world to be utilized (Balaguer & Cantavella-Jorda, 2002). While tourism encourages trade flows, so also that trade can facilitate tourism development. Aside from facilitating consumption, tourists foster export growth through demanding for goods and services produced in the host domestic economy. Consequently, such products can gain access to market in their home countries or alternatively that the business opportunities they observed during their foreign visits may become useful on returning to their home countries (Fischer & Gil-Alana, 2009). Trade between countries can serve as a medium through which tourist find goods and services familiar to them in their own countries and so this tends to attract tourists (Khan, Toh, & Chua, 2005; Kulendran & Wilson, 2000; Santana-Gallego et al., 2011). In either ways, such opportunities may result in employment and further creating multiplier effect on the GDP growth. Moreover, some theoretical reasons that bilateral trade can increase the share of tourism demand have been argued. First is that bilateral trade can lead to preference for home-country products and second, bilateral trade helps reduce costs of transactions between home and host country (Leitão, 2010). Transaction costs can be reduced through

cultural, historical and geographical proximity and hence promote tourism entrepreneurship. On the other hand, theoretically tourism is observed to have some indirect impact on trade increase which could be through import of necessary raw materials to enhance the production of tourist products and services thus improving the image of the region in question by transferring information about the region which subsequently leads to outstanding business opportunities (Santana-Gallego, M., Ledesma-Rodrı´guez, F., & Pe´rez-Rodrı´guez, J.V. (2011). Generally, literature on tourism demand gives attention to some relevant determining factors including transport costs, price, income in tourism engaging countries and population which may capture the market size. Population as one of the factors captures population changes. Literature emphasizes that population has some correlation with immigration (Witt,Witt, 1995; Oigenblick, Kirschenbaum, 2002). This is so because immigrants are considered to bring a preference to the home-country products which subsequently lowers transaction costs. Some studies conclude that tourism in host country with family and friends can be promoted by the respective immigrants (Oigenblick, Kirschenbaum, 2002; Dwyer et al., 1992). Earlier research works on trade believe that international trade theory is more or less international localization theory. The potential to create employment has become a great impression among supporters of tourism. Although manufacturing industry development contributes immensely to total output growth but with little opportunities for employment. The spread in the benefits of industrialisation through income from employment opportunities which is grossly inadequate becomes a big challenge to industrial policy. Some strands of research studies have examined the relationship between trade and tourism and likewise their effect on employment growth. (Khan et al., 2005) in the relationship between trade and tourism confirm the influence of international trade on tourism demand for the US economy.Turner and Witt(2001) carry out a study for New Zealand with findings that international trade significantly impacts on business tourism. Aradhyula and Tronstad (2003) demonstrated the efficiency of business trips in border trade between the US and Mexico whereas Tsui and Fung (2016) maintained that business travel and trade indicate some reciprocal link Hong Kong, China, Taiwan and the United States. Shan and Wilson (2001) study the relationship between trade and tourism between China and Australia, the United Kingdom and the USA. Using VAR method, they find that a bi-directional relationship exists between trade and tourism.

3. Research Design

The theoretical framework emanates from the tourism -economic base analytical framework. Theoretically, it is asserted that a stable relationship exists between basic and service jobs such that a change in basic jobs (E_b) facilitates a predictable change in service jobs and consequently in total employment. Expansion in basic activities leads to increase in non-basic jobs and overall employment (E_t) grows by same multiple M, the employment multiplier as described in equation (1) as follows:

$$E_t \propto E_b$$
$$M = \frac{E_t}{E_b} \tag{1}$$

The economic impact of tourism may be viewed from its multiplier effect not through its conventional terms as the flow of income but in the form of tourists' expenditure into the respective economies. Such expenditure is transformed into income and /or employment for the economy. Henderson and Cousins (1975) income multiplier model embraces the direct regional income generation, indirect regional income generation and the induced income generation and follows the following patterns.

$$M_r = \alpha + \beta + \sigma \tag{2}$$

Where α is direct regional income generation per dollar (Modified to suit Nigeria currency denomination) of tourist expenditure.

β is indirect regional income generation per dollar of tourist expenditure and;

σ reflects the induced regional income generation per dollar of tourist expenditure. But:

$$\alpha = \sum_{j-1}^{J} \sum_{i=1}^{I} M_{ji} Y_{d_i} \tag{3}$$

$$\beta = \sum_{j=1}^{J}\sum_{i=1}^{I} M_{ji}(Y_i - Y_{d_i}) \qquad (4)$$

$$\sigma = (\alpha + \beta)M \frac{1}{1 - L\sum_{i=1}^{J} M_i Z_i Y_i} \qquad (5)$$

Equations (3), (4) and (5) represent direct, indirect and induced regional income models. With appropriate merging and obtaining the regional complete model, we get:

$$I_r^c = \sum_{j=1}^{J}\sum_{i=1}^{I} N_j Q_j M_{ji} Y_i \frac{1}{1 - L\sum_{i=1}^{J} M_i Z_i Y_i} \qquad (6)$$

In equation (6), I_r^c is total income generated within the region from tourism activities

N_j is number of days in the region spent by the jth tourist type, Q_j reflects the total daily expenditure by the jth tourist type and other terms. N_j and Q_j indicate the multiplicand while other parameters signify other multiplication processes.

The assumption of the employment generation model is the direct relationship between turn over and the employment level. Based on Henderson and Cousins (1975), regional employment multiplier is embedded in three components. These are the direct employment emanates from those firms which receive tourist expenditure, indirect employment which emanates from other businesses with their turnover being augmented with purchases by the original business and likewise employment which emanates from all businesses due to increased turnover from residents' expenditure of the factor incomes being generated by the regional multiplier process. The following identity follows thus:

$$M_r = a + b + c \qquad (7)$$

Where M_r is regional employment multiplier;

$$a = \sum_{j=1}^{J}\sum_{i=1}^{i} \theta_{ji} M_{d_j} \tag{8}$$

M_{d_j} indicates increase in employment in the region per naira of turn over with respect to the *ith* type of business generated within similar type of business and other types of business which directly receives tourist expenditure.

$$b = \sum_{j=1}^{J}\sum_{i=1}^{I} \theta_{ji} (M_i - M_{d_i}) \tag{9}$$

M_i is the increase in employment in the region per naira of turn over to the *ith* business types generated within that business type participating in the subsequent transaction flows:

$$c = (\alpha + \beta + \sigma)\sum_{i=1}^{I} C_i M_i \tag{10}$$

Equations (8), (9) and 10 are respectively the direct employment generation, the indirect employment generation, and the induced employment generation.

$$M_{cr} = \sum_{j=1}^{J}\sum_{=j}^{I} N_j Q_j \theta_{ji} X_i + [\sum_{j=1}^{J}\sum_{i=1}^{I} N_j Q_j \theta_{ji} Y \left(\frac{1}{1 - L\sum_{i=1}^{J} M_i Z_i Y_i} \right)_i] \sum_{i=1}^{I} M_i X_i \tag{11}$$

Modifying the foregoing, three baseline models are specified; these

are Self-employment, Export and Import models:

$$Sem = \alpha_0 + \alpha_1 Export + \alpha_2 \text{Im} port + \alpha_3 no\_arriv + \alpha_4 oda + \alpha_5 p\_rem + \alpha_6 pop\_lc + \varepsilon_1$$
(12)

$$Export = \alpha_0 + \alpha_1 no\_arriv + \alpha_2 oda + \alpha_3 p\_rem + \alpha_4 pop\_lc + \varepsilon_2 \tag{13}$$

$$\text{Im} port = \alpha_0 + \alpha_1 no\_arriv + \alpha_2 oda + \alpha_3 p\_rem + \alpha_4 pop\_lc + \varepsilon_3 \tag{14}$$

Where *Sem* denotes self- employment, *Export* denotes total export trade, Im *port* is total import trade, *no _ arriv* is the total tourist arrival, *oda* represents overseas development assistance, *p _ rem* represent personal remittances and *pop _ lc* is population residing in large cities. $\varepsilon_1 = \varepsilon_2 = \varepsilon_3 =$ error term independently and identically distributed.

The Generalized Method of Moment *GMM* estimation technique is employed. It corrects an econometric model suspected with non-orthogonality among the regressors and error term. The *GMM* estimation is one of the most important developments in time series econometrics.

Generally, consideration is given to *n* equations accompanied by additive regression errors and that:

$$E(q_t, \varepsilon_t) = 0 \qquad (15)$$

q_t is an *mXn* matrix of instruments and ε_t is an *nX*1 vector of regression errors from the *n* equations in existence. Let $\hat{W}$ be an *mXm* positive definite weighting matrix with the emphasis that $\hat{W}$ may be sample dependent. Given that *s* is the sample size and based on Hansen (1982), *GMM* estimator chooses $\hat{\rho}$ that minimises the function:

$$\left[s^{-1} \sum_{t=1}^{s} g_t(\rho) \right]' \hat{W} \left[s^{-1} \sum_{t=1}^{s} g_t(\rho) \right] \qquad (16)$$

Under general conditions, $\hat{\rho} = \sqrt{s}$, consistent and asymptotically normal.

Suppose the long run variance of $g_t(\rho_0)$ takes the form:

$$\Omega = \sum_{j=-\infty}^{\infty} Eg_t(\rho_0) g_{t-j}(\rho_0)' \qquad (17)$$

Efficiency of *GMM* is defined by choosing $\hat{W}$ such that $\hat{W}^{-1} \to_\rho \Omega$ and hence $\hat{\Omega}^{-1}$, the weighting matrix. Given that G_t is an *mXk* matrix of derivatives of the orthogonality condition, just obtained at $\hat{\rho}_0$ as follows:

$$G_t = \frac{\partial g_t(\hat{\rho})}{\partial \rho} \qquad (18)$$

Defining $\hat{G}$ as sample counterpart evaluated at the sample estimator of ρ_0; such that :

$$\hat{G} = s^{-1} \sum_{t=1}^{s} \frac{\partial g_t(\hat{\rho})}{\partial \rho} \qquad (19)$$

The necessary condition that :

$$\hat{\rho} = \hat{G}\Omega^{-1} \left[s^{-1} \sum_{t=1}^{s} g_t(\hat{\rho}) \right] = 0 \qquad (20)$$

It makes sense to observe that since $g_t = q_t \varepsilon_t$, then the necessary condition may be re-written as :

$$\left[s^{-1} \sum_{t=1}^{s} z_t q_t \right] = 0 , \hat{z}_t = G'\Omega^{-1} q_t , \hat{\varepsilon}_t = \varepsilon_t(\hat{\rho}) \qquad (21)$$

With more moments than parameters, GMM takes similar fashion observed in the instrumental variable estimation.

Data employed for this study was obtained from the World Development Indicators spanning the period 1991-2019 and in some cases missing data is inevitable.

4. Estimation

Table 1. Descrptive statistics

	SEM	Export	Import	no arriv	oda	p rem	pop_lc
Mean	0.98	3.32	3.25	13.87	18.68	-0.88	3.55
Median	1.26	3.54	3.36	13.83	18.71	-0.65	3.68
Std	0.70	0.57	0.48	1.01	1.68	1.25	0.26
Skew	0.77	-1.57	-0.62	-2.00	0.15	-0.97	-1.50
Kur	4.20	5.37	1.67	7.88	1.97	5.35	4.57
J-B	0.00	0.00	0.00	0.00	0.02	0.00	0.00

The descriptive statistics on table 1 indicates that official development assistance has the highest mean and median values with personal remittance flows having the lowest mean and median. Intuitively, the three countries concerned have a large size of development assistance

compared to other financial flow. The relative high standard deviation further demonstrates the large size and volatility of development assistance into these countries. Jarque-Bera statistics which is above 5% level shows that only total receipt from tourism has normal distribution.

Table 2. GMM Estimation of SE, Export and Import Equations

DEP.VAR → SEM				Export			Import		
	Coeff.	S.E	Prob	Coeff	S.E	Prob	Coeff	S.E	Prob
C	5.41	0.53	0.00	1.87	3.34	0.58	3.37	1.69	0.06
Export	0.03	0.04	0.44	------	------	------	-----	-----	------
Import	0.05	0.05	0.37	-------	------	-------	-----	-----	------
No arriv	-0.19	0.03	0.00	0.01	0.18	0.98	-0.15	0.06	0.03
oda	0.05	0.02	0.05	0.10	0.07	0.19	0.06	0.05	0.19
P rem	0.06	0.05	0.21	-0.71	0.30	0.02	-0.29	0.15	0.06
pop_lc	-0.96	-15.80	0.00	-0.09	0.25	0.72	0.25	0.12	0.05
ar (1)				0.73			0.43		0.00
R^2	0.85			0.56			0.80		
$\bar{R}^2$	0.81			0.47			0.76		
DW	1.93			1.68			2.35		
	0.33			0.81			0.60		
Prob.J - stat									
Inst.rank	11			13			14		

From the GMM estimation on table 2 and starting with the self-employment equation, a 10% increase in export trade results in a significant increase in self-employment by about 0.3% and by about 0.5% for a 1% increase in import trade. The direct relationship between the two is in line with theoretical assertion that exporting always leads to higher demand for labour and hence employment and in this case self-employment. Besides, tourist may identify business opportunities that could lead to export trade. As shown in the estimation, rising import results in employment and increases labour force participation. This may subsequently lead to a rising level of self-employment. Importation of notable raw materials may show a significant positive impact on domestic firms' performance through productivity increase.Number of tourist arrival relates negatively with self-employment growth in Ghana, Nigeria and Cote d'Ivoire. A 1% increase in number of tourist arrival declines self-employment by about 0.2%. This demonstrates the low level of growth of the three countries' tourism industry in spite of the potentials including natural features and land formation, creativity and originality among others. This seems to aggravate unemployment problems most importantly in the area of self-employment.

The official development assistance similarly shows an improvement

on employment growth (0.05). Development assistance is expected to rebuild the economic structure together with economic transformation but sometimes the utilization of this particularly within the unproductive sector calls for concern. Meanwhile a 10% increase in Personal remittance increases employment by 0.6% and by implication, it appears remittance flows are helpful in stimulating self-employment growth in the three selected countries. Population in large city shows a negative relationship with self-employment. Teeming population in the region is expected to compete for same number of job applications thereby reducing the chances of any one securing. In Africa region existing competition makes self-employers to demand for labour at a relatively low wages as increased competition makes it difficult to find a job.

For the export and import equations, tourist arrival shows positive and negative effects on export(0.01) and import (-0.15) trade respectively. The positive effect of tourist arrival on export is in line with the fact that international visitors tend to identify business opportunities that could thrive export sales and in which case such opportunities tend not to support import purchases. Development assistance stimulates both export (0.1) and import growth (0.06) and is significant at the 10% level. This attests to the idea that foreign financial assistance can thrive trade flows. However, personal remittance inflows exert significant negative influences on both export (-0.71) and import (-0.29) growth. Remittance flows are expected to increase productivity for export growth and subsequently increase foreign exchange earnings. This may also increase importation of necessary raw materials for more productivity. Population in large city also has negative impact on export (-0.09) and a positive impact on import (0.25) trade. In bilateral trade, population serves as the market size and is expected to trigger trade. The negative influence here on export could be linked to low domestic production amidst the teeming population. The explanatory power of the explanatory variables is high in each of the scenarios except for export equation where only about 56% variation in the export growth is explained. The Durbin-Watson value shows that serial correlation between variables is not a major problem having regulated by the first order auto regressive scheme in the export and import equations which is positive and significant. The p-value of J statistics is greater than the 5% level of significance; hence the validity in the choice of instruments.

Endogeneity Test

Table 3. Specification : les c lexport limport lno arriv loda lp_Rem lpop_largec

Difference J-stats	Value	df	Prob.
	1.20	2	0.55

Next is to examine the non-orthogonality conditions among the regressors as shown by the results of endogeneity test. For the self-employment equation and given the probability value (0.55), the hypothesis that all the regressors are exogenous is accepted.

Table 4. Specification : lexport c lno arriv loda lp_Rem lpop_largec

Difference J-stats	Value	df	Prob.
	0.94	2	0.63

In line with the above, the hypothesis that all the regressors in the export equation are exogenous is also accepted following probability value 0.63.

Table 5. Specification : limport c lno arriv loda lp_Rem lpop_largec

Difference J-stats	Value	df	Prob.
	0.26	2	0.88

In the same way, regressors in the import equation are also exogenous given the probability value 0.88.

The results of tables (3), (4) and (5) attest to the justification for GMM estimation method.

5. Conclusion

The increasing level of international tourism activities over the period has placed it as an engine of growth and development as it contributes to employment opportunities despite some major obstacles around the globe. The LDCs have benefited from the positive externalities of tourism activities as demonstrated in the increasing earnings from export trade which create opportunities for competitiveness. Likewise, trade integration also enhances tourist attraction through investment in infrastructure that can further strengthen the relationship with the end results that employment growth is enhanced. The panel GMM was employed for the estimation of the relationship between tourism and trade and employment growth with specific focus on self-employment. Export and Import trade, development assistance and personal remittance flows were a major driver of self-employment growth in Ghana, Nigeria and Cote d'Ivoire. However, number of tourist arrival showed a negative impact on

self-employment but encouraged export trade.

Major policy implications here are mainly for the countries in question to facilitate trade through less stringent trade policy framework for tourist attraction and hence boost employment opportunities. Likewise, the need to have effective means of linkages through ensuring better infrastructure would not only enhance free flow of tourism activities but also facilitate domestic trade and self-employment. There should be regulation of the environment from activities that can lead to outbreak of epidemics which could effectively retard trade, tourism and hence employment. Tourism activities are expected to improve trade; hence trade integration should be enhanced and tourists encouraged to embark on activities that can facilitate trade for their countries foreign exchange earnings.

References

Aradhyula S., & Tronstad R. (2003). Does Tourism Promote Cross-Border Trade?*American Journal of Agricultural Economics*, *85*(3), 569–579. https://doi.org/10.1111/1467-8276.00456

Balaguer, J., & Cantavella-Jorda, M. (2002). Tourism as a long-run economic growth factor, the Spanish case. Applied Economics, *34*(7), 877–884. https://doi.org/10.1080/00036840110058923

Bhagwati, J. N. (1978). Foreign trade regimes and economic development, anatomy and consequences of exchange control regimes. New York: National Bureau of Economic Research.

Bryon, J. (2012). Tour guides as storytellers - from selling to sharing. *Scandinavian Journal of Hospitality and Tourism*, *12*(1), 27–43. https://doi.org/10.1080/15022250.2012.656922

Chaisumpunsakul, W., & Pholphirul, P. (2018). Does international trade promote international tourism demand? Evidence from Thailand's trading partners. *Kasetsart Journal of Social Sciences*, 39, 393 400.China', *Applied Economics Letters*, *8*, 279–283. http://doi.org/10.1016/j.kjss.2017.06.007

Dwyer, J.F., McPherson, E.G., Schroeder, H.W., & Rowntree, R.A. (1992). Assessing the benefits and costs of the urban forest. Journal of Arboriculture, *18* (5), 227-234.

Ekanayake, E. M., & Long, A. E. (2012). Tourism Development and Economic Growth in Developing Countries. *The International Journal of Business and Finance Research*, *6*(1), 51–63. https://www.theibfr.com/download/IJBFR/2012-ijbfr/ijbr-v6n1-2012/IJBFR-V6N1-2012.pdf

González, A. (2017). Sustainable tourism to sustain development. International Trade Centre

Henderson, D. M., & Cousins, R. L. (1975). The economic impact of tourism: a case study in Greater Tayside. Tourism and Recreation Research Unit. Research Report 13. Edinburgh: University of Edinburgh.

Khan, H., Toh, R. S., & Chua, L. (2005). Tourism and Trade: Cointegration and Granger Causality Tests. *Journal of Travel Research*, *44*(2), 171–176. https://doi.org/10.1177/0047287505276607

Kulendran, N, Wilson, K. (2000). Is there a relationship between international trade and international travel, *Applied Economics*, *32*, 1001–1009. https://doi.org/10.1080/000368400322057

Leitão, N. C. (2010). Does trade help to explain tourism demand? The case of Portugal. *Theoretical and Applied Economics*, *17* (*3*/544), 63–74.

Oigenblick, L. & Kirschenbaum, A. (2002). Tourism and Immigration Comparing Alternative Approaches. *Annals of Tourism Research*, *29* (4), 1086–1100. https://doi.org/10.1016/S0160-7383(02)00023-3

Rusu, S., Isac, F., & Cureteanu, R. (2016). Worldwide tourism entrepreneurship, a global perspective. *Facultatea de Management Agricol*, *17*(4), 64–68.

Santana-Gallego, M., Ledesma-Rodrı´guez, F., & Pe´rez-Rodrı´guez, J.V. (2011). Tourism and trade in OECD countries. A dynamic heterogeneous panel data analysis. *Empirical Economics*, *41*(2), 533–554. https://doi.org/10.1007/s00181-011-0477-9

Shan, J., & Wilson, K. (2001), Causality between trade and tourism: empirical evidence from China, Applied Economics Letters, 8:4, 279–283. https://doi.org/10.1080/135048501750104114

Sinclair, M.T., & Stabler, M. (1997), *The Economics of Tourism*, Routledge, London.

Taskov, N., Metodijeski, D., Dzaleva, T., & Filipovski, O. (2011). Entrepreneurship in tourism industry lead to business benefits. In *2nd Biennial International Scientific Congress: The influence of Tourism on Economic Development* (pp. 1–12). Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.472.4645&rep=rep1&type=pdf

Tsui, W. H. K., & Fung, M. K. Y. (2016). Causality between business travel and trade volumes: Empirical evidence from Hong Kong. *Tourism Management*, *52*, 395–404. https://doi.org/10.1016/j.tourman.2015.07.010

Turner, L.W., & Witt, S.F. (2001). Forecasting tourism using univariate and

multivariate structural time series models. *Tourism Economics*, 7 (2). 135–147. https://doi.org/10.5367%2F000000001101297775

UNWTO (2018). Tourism Highlights. https://doi.org/10.18111/9789284419876

Webster, A., Fletcher J., & Hardwick, P. (2007). Tourism and empirical applications of international trade theory: a multi-country analysis, *Tourism Economics*, 2007, *13* (4), 657–674. https://doi.org/10.5367/000000007782696041

Witt, S. Witt, C. (1995). Forecasting Tourism Demand: A Review of Empirical Research*, International Journal of Forecasting*, *11*(3), 447–475. https://doi.org/10.1016/0169-2070(95)00591-7

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