

## INVESTIGATION OF THE RELATIONSHIP BETWEEN TOURISM AND ECONOMIC GROWTH: THE CASE OF THE BALTIC STATES

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### Abstract

As economic growth is an aspiration of many developed and developing economies and tourism is claimed to be one of the driving forces for the economy, when COVID-19 hit the world and dropped down the indicators of tourism and economy, it led to looking for solutions to revive the economy and to drive economic growth. This study covers the problem arising from the pandemic crisis affected tourism sector and caused economic downturn with the aim to evaluate the relationship between tourism and economic growth to find out if the support of the Baltic States' tourism may contribute to economic growth and whether it may be a possible tool to revive the economy that has declined by the crisis as the COVID-19 pandemic. Besides a plenty of research investigating tourism and economic growth, this study is carried out to fill the research gap of the relationship between these two factors in the Baltic States. Performing correlation analysis, data of three Baltic countries – Lithuania, Latvia and Estonia – from the period 2009-2018 are integrated. Tourism is expressed by expenditure while economic growth is measured by GDP and employment rates. The results reveal statistically significant relationship between tourism and economic growth in Lithuania and in Estonia. In Latvia, no statistically significant results were found. As in Lithuania and Estonia tourism and economy has a strong positive relationship, tourism here could be considered as a possible tool to stimulate the economic growth. This analysis may be a useful base for the Baltic States' political and economic macro-level decision making as it may help to find the possible direction to revive economy while supporting tourism and to go towards the economic growth.

**Keywords:** *Baltic States, economic indicators, economic growth, economy, tourism, tourism indicators.*

**JEL codes:** *Z32, O47.*

### Introduction

Economic growth has been and still is an aspiration of many developed and developing countries. Ever since it has been a significant object of the scientific research of the economic field. Tourism is claimed to be a driving force for the economy, generating GDP and supporting jobs worldwide. However, after the period of the COVID-19 pandemic (2020 March – 2023 May, World Health Organization, 2020, 2023), which dropped down the indicators of tourism and economy, it is even more important to look for the solutions that can help to revive the economy. The unprecedented losses in tourism and economics states how losses in tourism will respond in economic indicators and again presupposes the interaction between the tourism and economy. WTTC (2020) claims when travel and tourism (T&T) sector is facing unprecedented

challenges and an existential threat from the impact of the COVID-19 virus globally, it is essential that governments recognise this and ensure that T&T is sustained through the crisis so that it can fulfil its vital roles as a significant catalyst of global economic recovery and growth. T&T's growth is crucial to continue to support the 330 million jobs and 10.3 % of global GDP. Therefore, the investigation of the relationship between tourism and economic growth is especially relevant after facing the crisis as COVID-19, as it potentially could be a base for the political and economic solutions to help to revive countries' economy and to stimulate economic growth.

As tourism is claimed to be an engine of the economy globally and there is a plenty of research investigating tourism and economic growth, the relationship between these two factors in the Baltic States is an outstanding issue. This research fills the literature gap that

lacks tourism and economic growth interaction investigations for the Baltic States by disclosing the relationship between tourism and economic growth in the Baltic countries – Lithuania, Latvia and Estonia. Describing the research area geographically and justifying the relevance of this region for this analysis it can be mentioned that Latvia and Estonia have a lot of in common looking at their historical path, their road towards independency, integration into international organizations, the modernization of the Baltic economies, demographic modernization, etc. The research by the Baltic Sea Tourism Centre (2018) states that tourism industry in the Baltic Sea Region – in a narrow definition – is an economic powerhouse. Therefore, these presumptions let to think that the Baltic States have a potential in tourism-led economic revive and growth.

This study covers the problem raised from the COVID-19 pandemic caused economic downturn, looking for a direction to revive the economy, aiming to investigate the relationship between tourism and economic growth to find out if the supporting of the Baltic States' tourism could be related to economic growth. It is performed to find the answer whether support of tourism may contribute to economic growth and whether it may be a tool to revive the economy after facing a crisis.

The aim of the research is to evaluate the relationship between tourism and economic growth in the Baltic States. The object of the research is the relationship between tourism and economic growth in the Baltic States. The research methods include analysis and synthesis of scientific literature, analysis of statistical data, correlation analysis (SPSS statistical package). The research problem is investigated by getting from the broader point of view to the narrow area of research. Analysis and synthesis of scientific literature gives the theoretical background of the research as it reveals the interaction between tourism and economic growth worldwide and in Europe, exposing the relevance of this investigation. Analysis of statistical data and investigation of the main tourism indicators related to economy confirms the importance of the role of T&T sector in European and the Baltic States' economy, giving the presumption for further,

more detail and more valid step of the investigation. Correlation analysis, including data of the three Baltic States countries – Lithuania, Latvia and Estonia – of the period of 2009-2018 is applied to evaluate the interdependence between selected variables – tourism expenditure, GDP and employment rates in order to answer the main research question whether and how tourism and economic growth in the Baltic States are related. The research contributes to the economic field by disclosing the new angle of the research evaluating tourism interaction with economic growth in the Baltic States. The originality of this study comes from the origin of the scientific problem and is confirmed by the research field selection – the analysis of the Baltic States. Responding to scientific novelty, the research is performed to find the answer whether support of tourism may contribute to economic growth and, in the context of the crisis as COVID-19 pandemic, whether it may be a direction in reviving the economy. The findings of this research may be a useful base for the Baltic States' political and economic macro-level decision making as it may help to find the priority areas and the solutions to revive economy while supporting tourism and to go towards the economic growth.

### **Theoretical framework of the relationship between tourism and economic growth**

Starting from the broader point of view, T&T is claimed to be one of the world's largest economic sectors, generating 10.3% of global Gross domestic product (GDP) and supporting one in 10 jobs worldwide, 330 million jobs in total (World Travel and Tourism Council (WTTC), 2020). According to the data of the WTTC (2020), 2019 was another year of strong growth for the global T&T sector, reinforcing its role as a driver of economic growth and job creation.

In 2019, T&T's direct, indirect and induced impact accounted for US\$ 8.9 trillion contribution to the world's GDP, US\$ 1.7 trillion visitor exports (6.8% of total exports, 28.3% of global services exports) and US\$ 948 billion capital investment (4.3% of total investment).

Until the COVID-19 hit the world, tourism sector was expected to grow further. It was predicted that the total volume of tourism at nominal prices will double in 2029 (WTTC, 2019). According to the research by Calderwood & Soshkin (2019), the total number of international tourists should have been reached 1.8 billion by 2030. WTTC (2020) estimated that in 2030 contribution of T&T sector to global GDP will reach 11.3%. According to calculations, in 2030 it should have been supported 425 million jobs, what means one of nine jobs worldwide and one of four new jobs created in the world. These statistics and predictions just prove that tourism is one of the fastest growing industries and a driving force for so many developed as well as developing economies (Manzoor et al., 2019). In 2020, when COVID-19 hit the world, T&T sector got into a precarious position with decreasing number of trips and tourists worldwide. WTTC (2020) projected unprecedented losses for 2020 that up to 100.8 million T&T sector jobs were at risk (31% decrease) and up to US\$ 2.7 trillion T&T GDP could be lost (30% decrease). It was predicted that global economic impact of COVID-19 could lead to 2.9% global unemployment rate increase, directly from T&T losses. WTTC (2020) also estimated economic impact from COVID-19 in Europe. The calculations of November 2020 revealed that 18.8 million T&T jobs had been already lost in 2020, what means 51% loss, as well as the same percentage amount (51%) loss of T&T GDP, what means 1.025\$ loss and there was also notable decrease in global, international and domestic arrivals accordingly equal to 62% and 37%. These predictions, that clearly say about how losses in tourism responds in economic indicators, could be another one assumption for the relationship between tourism and economy investigation, because if the positive relationship between tourism and economy exists, countries, trying to revive the economy, could take an action recovering and supporting tourism.

Many researchers argue the importance of tourism on economy and its' contribution to economic growth. Gavurova et al. (2020) states that tourism could be considered as one of the key engines of a region's economic growth. Malakauskaite & Navickas (2010) add that tourism sector is one of the key sectors in modern service-based economies. According to Nicolae (2017), tourism is a particularly complex phenomenon with serious economic, social, cultural and political consequences. Bunghez (2016) states that tourism represents, in the context of contemporary civilization, through its content and its role, a distinct area of activity, and a segment of essential importance in the economic and social life of most countries in the world. The research of Gavurova et al. (2020) revealed that tourism has a multiplier effect on a business community and economy, as it supports a creation of new working places, and also capital accumulation and financial resources of sustainable development of economically weaker regions. According to research by Alam & Paramati (2016), tourism contributes to economic growth through various channels including foreign currency earnings, attracting international investment, increasing tax revenues and creating additional employment opportunities. Manzoor et al. (2019) agree that tourism is the largest source of employment opportunities and a huge wealth originator and a greater contributor to the diversified economy. Author adds that at a global level, tourism represents a crucial economic component. The extent and economic contribution of this activity differs from country to country (Bunghez, 2016). It is generally assumed that the expansion of tourism should have a positive effect on economic growth (Shakouri, 2017). Therefore, a wide range of literature that emphasizes the influence of tourism development on direct and indirect economic benefits is available (Alam & Paramati, 2016). There are a lot of examples where tourism has a very positive impact on the economy of any country (Ringer, 2013). There are nations, whose economy is substantially supported by the local tourism industry (Bunghez, 2016). Tourism plays a significant

economic role in a process of sustainable regional development, where it helps to develop low-growth regions (Gavurova et al.; 2020). As Navickas & Malakauskaite (2009) claim, some countries are not rich in natural resources or highly developed industry sectors, therefore they tend to concentrate their efforts on the development of tourism industry and services. According to Manzoor et al. (2019), weaker regions or regions in decay could be developed through the tourism sector easily. In the recent decades, most international organizations have argued that tourism can be conceived as a tool for economic development in many regions of the world (Cardenas-Garcia et al., 2013). Manzoor et al. (2019) agrees that tourism sector plays an important role in boosting a nation's economy. According to Lee et al. (2020), from the existing research, several studies have been conducted to analyse the role of tourism in economic growth. Authors claim that the growth in international tourism has taken place around various activities over the years: leisure, business, medical, cultural, adventure, wellness, sports, religious, wildlife and ecotourism. In the research of Manzoor et al. (2019), it is stated that an increase in tourism flow can bring positive economic outcomes to the nations, especially in GDP and employment opportunities. According to Lee et al. (2020), leading tourism become an engine of development for many small economies and a viable sector for developed economies. Shahzad et al. (2017) agrees that tourism is the main source and a foundation for a country's economic development and growth in developing countries.

The tourism–growth hypothesis has been long debated in the literature (Lee et al., 2020). Many contributions from the economic literature recognize the potential of tourism as the tool for economic development (Cardenas-Garcia et al., 2013). However, according to Lee et al. (2020), the literature has, without a doubt, captured the different facets of the growing importance of the tourism industry. Therefore, although there are many studies of the relationship between tourism and economic growth from a range of perspective (Lee et al., 2020), the lack of a clear consensus on the exact nature of relationship between tourism and

economic growth indicates that this area of research is inconclusive and is still open to discussion (Nepal et al., 2019). And the deficiency of clarity between the relationship of tourism and economy is just a part of the issue. Caglayan et al. (2012) state that although causal relationship between tourism and economic growth is generally supported, the strength and direction of relationship changes over country groups and conditionality on other possible determinants exists. Gavurova et al. (2020) adds that tourism's position, its development and relations to other sectors differ in the individual countries. Authors state that in some countries, tourism is a long-term profiling factor of economic activities, while in others, it may play a supplementary role from a perspective of a country's economy development. It is explained to be given by a character of a country and its economic and political situation, attractiveness, population structure, etc. Summing up the insights by scientific authors, they have already been discussing the impact of tourism on economy for some decades (Debaduti & Sushil, 2009; Caglayan et al., 2012; Godfrey & Clarke, 2012; Marzuki, 2012; Scheyvens & Russel, 2012; Alam & Paramati, 2016; Bunghez, 2016; Afthanorghan et al., 2017; Sheng et al., 2017; Carvache-Franco et al., 2018; Watkins et al., 2018; Wu et al., 2018; Nepal et al., 2019 et al.). Some authors made scientific research, analysing interaction between tourism and economic growth (Caglayan et al., 2012; Cardenas-Garcia et al., 2013; Zurub et al., 2015; Bunghez, 2016; Afthanorghan et al., 2017; Bilenet al., 2017; Guo et al., 2017; Ohlan, 2017; Selimi et al., 2017; Shakouri et al., 2017; Wu et al., 2018; Manzoor et al., 2019; Nepal et al., 2019; Odunga, 2019; Eyuboglu & Eyuboglu, 2020; Khan et al., 2020; Lee et al., 2020 et al.). However, there are only a few studies, investigating tourism in the context of the Baltic States (Druvaskalne & Slara, 2006; Labanauskaitė, 2014; Hajdu & Liptak, 2016; Baltic Sea Tourism Centre, 2018; et al.) and they poorly analyse the interaction of tourism and country's economy.

Summarizing, literature review discloses the problem of the research, that is raising from the COVID-19 pandemic affected

tourism sector and caused economic downturn and the lack of the literature on the investigation of the Baltic States situation, addressing the relationship between tourism and economic growth. This study is filling this gap of the scientific literature by evaluating the relationship between tourism and economic growth in the Baltic States. The research contributes to the tourism economic field by disclosing the new angle of the research evaluating tourism interaction with economic growth in the Baltic States. The originality of this study is revealed from the origin of the scientific problem and is confirmed by the research field selection – the analysis of the Baltic States. Addressing the scientific novelty, the research is performed to find the answer whether support of tourism may contribute to economic growth and, in the context of the crisis as COVID-19 pandemic, whether it may be a direction in reviving the economy that has recently declined.

#### **Data and methodology of the investigation of the relationship between tourism and economic growth in the Baltic States**

Theoretical framework and the analysis of the tourism indicators related to economy revealed that tourism takes a significant part in the economy, both, worldwide and in Europe. To confirm whether tourism could be a driving force of economy in the Baltic countries, the evaluation of the relationship between tourism and economic growth in the Baltic States is made by performing the correlation analysis. The study focuses on answering the main research question whether and how tourism and economic growth in the Baltic States are related to assess whether the support of the Baltic States' tourism may contribute to countries' economy and help to revive the economy.

Three Baltic States countries – Lithuania, Latvia and Estonia – are analysed. The data analysis period is 2009-2018 years. Tourism is expressed as expenditure and economic growth is measured by GDP and employment rates. According to Zurub et al.

(2015), assessing the impact of tourism on economic growth, much attention is paid to the share of tourism expenditure. This indicator is used in the studies investigating tourism and economic growth by other researchers (Athanasopoulou, 2013; Seghir et al., 2015; Usmani et al., 2021). Visitor expenditure on accommodation, food and drink, local transport, entertainment and shopping is an important contributor to the economy of many destinations, creating employment and opportunities for development (Athanasopoulou, 2013). It refers the number of payments made by visitors. The data on GDP is generally used for measuring the economic growth, as it represents approximation of the living standard (Obradovic et al., 2017). The World Bank (2021) describes GDP as a widely used indicator that refers to the total gross value added by all resident producers in the economy, which is mentioned as the first indicator of economic activity and as the indicator for measuring economic growth. Empirical studies highlight that economic growth tends to be positively associated with job creation (Basnett & Set, 2013). Study by Aliyu (2019) justifies that employment contributes to economic growth and development: workers produce valuable goods and services, and in turn receive a wage, which they can spend on buying the goods produced. When employment is at full, the economy is 100% efficient. Study discloses that employment is important for economic development because it improves the quality of living standard of an employed person and this help to improve the business of employer or improve the productivity of any company resulting in overall increase in economic growth and development of the country.

Statistical data from the Eurostat are operated and processed using SPSS statistical package. Expenditure is measured by thousand euro, as one night or over duration stay, including all countries on the world. GDP is an indicator for a nation's economic situation, which reflects the total value of all goods and services produced less the value of goods and services used for intermediate consumption in their production (Eurostat, 2020). In this

investigation GDP at market prices values by million euro are used. Another economic indicator, applied in this analysis, is employment, based on the domestic concept by thousand persons. Employment covers all persons engaged in some productive activity that falls within the production boundary of the national accounts. Employed persons are either employees (persons who work by agreement, work for a resident institutional unit, and receive a remuneration recorded as compensation of employees) or self-employed (persons who are the sole owners, or joint owners, of the unincorporated enterprises in which they work, excluding those unincorporated enterprises that are classified as quasi-corporations). The domestic concept of employment includes both the residents and the non-residents who work for resident producer units (Eurostat, 2020).

Correlation analysis method is applied to evaluate the interdependence between selected variables – expenditure and GDP, and employment rates. One of the main indicators

of correlation analysis is the  $p$  value. As Laskiene et al. (2020) states,  $p$  is the value of marginal significance. In this investigation, the selected cut off for significance is 0.05. If  $p < 0.05$ , the relationship between two variables is statistically significant, what means that the changes in one variable affects the other one. According to Laskiene et al. (2020), a positive value of the correlation coefficient indicates a direct relationship: the values of the variables vary in the same direction – an increase in one of them causes an increase in the other, and vice versa, while a negative value of the correlation coefficient indicates an inverse relationship, when the variables vary in different directions – an increase in one of them causes a decrease in the other, and vice versa. The correlation coefficient may vary between -1 and 1. The higher the coefficient is, the stronger the correlation, what means the stronger the relationship between variables (Sugiyono, 2013).

Table 1 shows descriptive statistics of the indicators of the research analysis.

**Table 1. Descriptive statistics of the indicators of analysis in the period 2009-2018 in the Baltic States, thousand euro**

	Unit of measure	N	Minimum	Maximum	Mean	Std. Deviation
Expenditure_LT	Thousand euro	10	633842,00	1205978,46	916507,7770	175079,04545
Expenditure_LV	Thousand euro	10	537344,47	688638,00	623321,8710	52319,60031
Expenditure_EST	Thousand euro	10	343294,00	2108996,34	854179,1120	508419,47875
GDP_LT	Million euro	10	26934,80	45264,40	35473,4300	5874,04994
GDP_LV	Million euro	10	17817,70	29056,10	23079,4100	3508,72878
GPD_EST	Million euro	10	14211,80	26035,90	19645,0900	3803,87243
Employment_LT	Thousand persons	10	1248,20	1380,60	1317,3250	47,30485
Employment_LV	Thousand persons	10	843,51	903,72	879,8860	18,97499
Employment_EST	Thousand persons	10	548,10	657,70	612,8300	33,35519

\*Source: Compiled by the author using SPSS statistical package, based on the data of Eurostat, 2020.

Table 1 demonstrates descriptive statistics of indicators of the analysis – expenditure, GDP and employment – in the period 2009-2018 in the Baltic States. The data provide a comparison of the tourism and economic situation between countries.

Evaluating expenditure, Estonia has the widest range with around 343 million euro minimum and around 2,1 billion euro maximum. Expenditure in Latvia in analysis period fluctuated the least (around 537 million min. and around 689 million max.). Lithuania

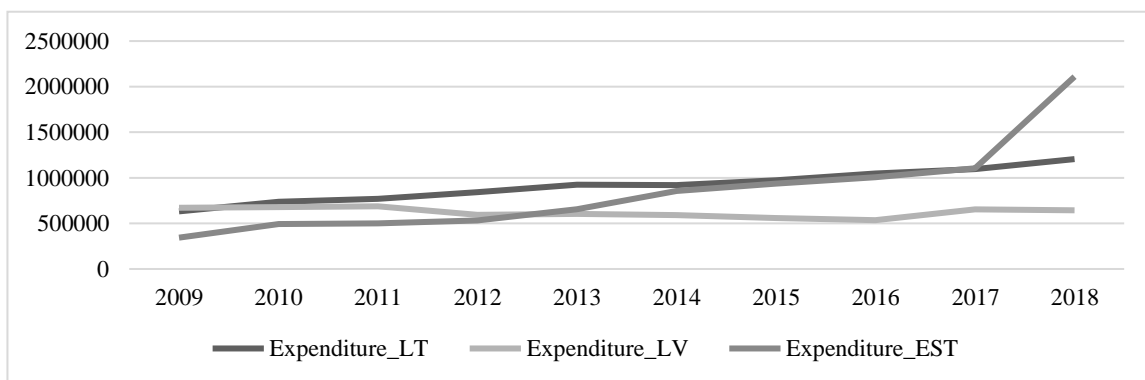
here got the middle position (around 634 million min. and 1,2 billion max.). The mean of expenditure in analysis period was the biggest in Lithuania. However, standard deviation in analysis period has the highest value in Estonia. It could be claimed that in analysis period Lithuania and Estonia had the biggest amount of tourism expenditure. Evaluating GDP, the biggest mean (around 36 billion euro) is fixed in Lithuania. Measuring employment, Lithuania again has the highest mean (around 1,3 million persons) value.

Summing up descriptive data, it could be assumed that assessing the tourism, Estonia in the analysis period had the highest values and evaluating economy, Lithuania performed the best.

**The results of the investigation of the relationship between tourism and economic growth in the Baltic States**

To better understand the situation and the trend of each country, more detailed, periodic analysis of each selected indicator in the Baltic States for the period 2009-2018 is carried out. This evaluation, as the trend of each analysed indicator is revealed, will be useful to better interpretation of correlation analysis results.

Starting with tourism expenditure, figure 1 presents the dynamic of this indicator in the Baltic States in 2009-2018.



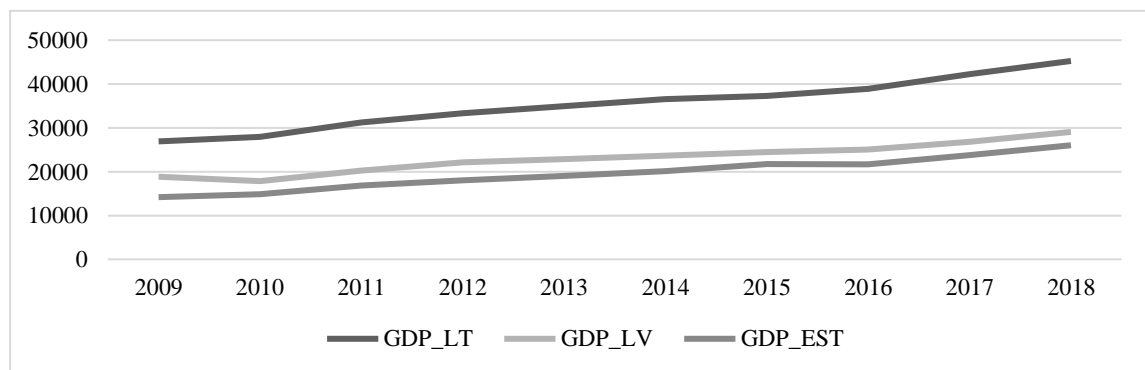
**Figure 1. The dynamic of tourism expenditure in the Baltic States in 2009-2018, thousand euro**

\*Source: Compiled by the author, based on the data of Eurostat, 2020.

Figure 1, illustrating tourism expenditure in the Baltic States in 2009-2018 by thousand euro, reveals that in all the period Lithuania has a steady increasing trend. Latvia has more fluctuated expenditure values with some periods of decrease. Estonia is characterized by the fastest increasing trend with a high value leap in 2018. It may be that this country has the biggest potential for reviving the economy by

encouraging tourism, however, to make that kind of conclusion, more detailed analysis of the relationship between tourism and economy is needed.

Carrying on the analysis, figure 2 shows the dynamic of GDP at market prices in the Baltic States in 2009-2018.



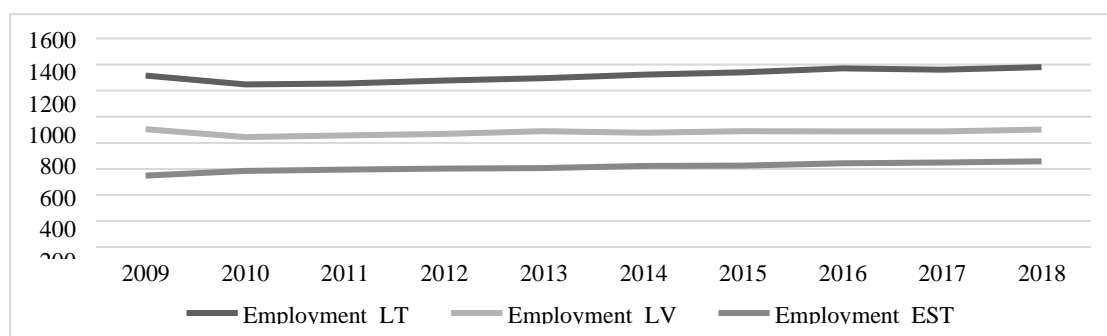
**Figure 2. The dynamic of GDP at market prices in the Baltic States in 2009-2018, million euro**

\*Source: Compiled by the author, based on the data of Eurostat, 2020.

Figure 2, illustrating GDP at market prices in the Baltic States in 2009-2018 by million euro, reveals that there is an evident trend of increase. All three Baltic countries in the analysis period had an increasing GDP (despite a small fluctuate in Latvia in 2010). The data reveals that Lithuania has the highest GDP value. Latvia takes the second position and Estonia is the third in the context of the Baltic States. According to this data in the period of analysis Lithuania had the strongest

economy. All the Baltic countries had an increasing economy in the analysed period. It again confirms that COVID-19 pandemic, that struck in 2020, changed the direction of growth, initiated negative effects, and encouraged to look for the ways how to recover the economy.

Another one indicator that is included in the analysis – employment in the domestic concept in the Baltic States in 2009-2018 – is presented in figure 3.



**Figure 3. The dynamic of employment in the domestic concept in the Baltic States in 2009-2018, thousand persons**

\*Source: Compiled by the author, based on the data of Eurostat, 2020.

Figure 3 shows the dynamic of employment in the domestic concept in the Baltic States in 2009-2018 by thousand persons. Despite the fluctuation in the 2009-2010, that may be caused by financial crisis, employment in all Baltic States had an increasing trend. Lithuania took the first position with the highest level of employment, Latvia is the second one and in Estonia there was the smallest amount of employed persons. This data at this point let to consider Lithuania as the strongest economy in the Baltic States. All the Baltic States had quite stable trend of employment rate in the period of analysis.

The situation changed in the 2020, when the COVID-19 pandemic hit the world. It again leads back to the pandemic crisis presupposed problem – the negative affection on tourism sector and the economic downturn – that this research is trying to address.

Further data illustrates the results of correlation analysis between tourism and economy in the Baltic States. It covers the research problem and leads to the aim of confirming or denying the relationship between tourism and economy.

The results of correlation between tourism and economy in Lithuania are presented in table 2.

**Table 2. Correlation between tourism and economy in Lithuania**

		Expenditure_LT	GDP_LT	Employment_LT
Expenditure_LT	Pearson Correlation	1	<b>,989**</b>	<b>,794**</b>
	Sig. (2-tailed)		<b>,000</b>	<b>,006</b>
	N	10	10	10
GDP_LT	Pearson Correlation	<b>,989**</b>	1	<b>,817**</b>
	Sig. (2-tailed)	<b>,000</b>		<b>,004</b>
	N	10	10	10
Employment_LT	Pearson Correlation	<b>,794**</b>	<b>,817**</b>	1
	Sig. (2-tailed)	<b>,006</b>	<b>,004</b>	
	N	10	10	10

\*\*Correlation is significant at the 0.01 level (2-tailed).

\*Source: Compiled by the author using SPSS statistical package, based on the data of Eurostat, 2020.



Table 2 shows the results of correlation analysis between tourism expenditure and GDP and employment in Lithuania, as an expression of the relationship between country's tourism and economy. Analysis revealed statistically significant results. Expenditure and GDP has a very strong positive relationship ( $p=0,000$ ), as well as expenditure and employment ( $p=0,006$ ).

Summing up, in Lithuania tourism and economy has a very strong positive relationship. That means, when tourism has an increasing trend, country's economy is also growing.

The results of correlation between tourism and economy in Latvia are presented in table 3.

**Table 3. Correlation between tourism and economy in Latvia**

		Expenditure_LV	GDP_LV	Employment_LV
Expenditure_LV	Pearson Correlation	1	<b>-,418</b>	<b>-,304</b>
	Sig. (2-tailed)		<b>,230</b>	<b>,393</b>
	N	10	10	10
GDP_LV	Pearson Correlation	<b>-,418</b>	1	,557
	Sig. (2-tailed)	<b>,230</b>		,094
	N	10	10	10
Employment_LV	Pearson Correlation	<b>-,304</b>	,557	1
	Sig. (2-tailed)	<b>,393</b>	,094	
	N	10	10	10

*\*Source: Compiled by the author using SPSS statistical package, based on the data of Eurostat 2020.*

Table 3 presents the results of correlation analysis between tourism expenditure and GDP and employment in Latvia. No statistically significant results were revealed ( $p=0,230$ ;  $p=0,393$ ). Expenditure does not correlate nor with country's GDP, neither with employment. No conclusion tourism and economy relationship can be made. As this research

includes the analysis of each indicator in each country, we may assume that these non-significant results were affected by the fluctuation in Latvia's tourism expenditure values in the analysis period.

The results of correlation between tourism and economy in Estonia are presented in table 4.

**Table 4. Correlation between tourism and economy in Estonia**

		Expenditure_EST	GPD_EST	Employment_EST
Expenditure_EST	Pearson Correlation	1	<b>,901**</b>	<b>,829**</b>
	Sig. (2-tailed)		<b>,000</b>	<b>,003</b>
	N	10	10	10
GPD_EST	Pearson Correlation	,901**	1	,959**
	Sig. (2-tailed)	,000		,000
	N	10	10	10
Employment_EST	Pearson Correlation	<b>,829**</b>	<b>,959**</b>	1
	Sig. (2-tailed)	<b>,003</b>	<b>,000</b>	
	N	10	10	10

**\*\*.** *Correlation is significant at the 0.01 level (2-tailed).*

*\*Source: Compiled by the author using SPSS statistical package, based on the data of Eurostat, 2020.*

Table 4 presents the results of correlation analysis between tourism expenditure and GDP and employment in Estonia. Analysis revealed statistically significant results. Expenditure and

GDP has a very strong positive relationship ( $p=0,000$ ), as well as expenditure and employment has ( $p=0,003$ ). Summing up, in Estonia tourism and economy has a very strong

positive relationship. That means, when tourism has an increasing trend, country's economy is growing as well.

These calculations, covering the research problem, give the answer to the main research question whether and how tourism and economic growth in the Baltic States are related. It is disclosed that Lithuania and Estonia are the countries that have a significant strong positive relationship between tourism and economy. In Latvia no statistically significant results were found. These findings let presuppose that, as tourism and economy have a strong positive relationship in Estonia and Lithuania, the authorities of these countries could use tourism reviving the pandemic-damaged economy and reaching the economic growth.

### **Discussion**

The amount of the scientific research lets to confirm that the impact of tourism on the economy is relevant topic. Most scientists argue for a positive role of tourism in economic development and most of the research investigating the interaction between tourism and the economy remain with tourism as a tool for economic growth. The relationship between tourism and economic growth is undeniable in most of the cases. Even there are some researches of the tourism in the Baltic States, the economic basis is left aside in most of the studies. This research improves and expands related research by analysing the new angle of the relationship between tourism and economy in the Baltic States.

Evaluating the relationship between tourism and economic growth, the indicators of the Baltic States countries in the period of 2009-2018 have been analysed. Tourism is expressed as expenditure and economic growth is measured by GDP and employment rates. The analysis shows that Lithuania and Estonia have the biggest amount of tourism expenditure.

The biggest mean of GDP (around 36 billion euro), as well as standard deviation (around 5,9 billion euro) is set in Lithuania. Measuring employment, Lithuania again has the highest mean (around 1,3 million persons). Assessing the tourism, Estonia has the highest values and evaluating economy, Lithuania performed the

best in the context of the Baltic States. Detailed analysis of tourism expenditure in the Baltic States in 2009-2018 reveals that in all the period Lithuania has a steady increasing trend, Latvia has more fluctuated expenditure values with some periods of decrease and Estonia has the fastest increasing trend. Evaluating GDP, there is an evident trend of increase in all three Baltic countries. Lithuania has the highest GDP value, Latvia takes the second position and Estonia – the third. Evaluating employment in the domestic concept, despite the fluctuations, all Baltic States has an increasing trend. Lithuania takes the first position, Latvia is the second one and Estonia has the smallest amount of employed persons. According to these findings, Lithuania could be considered as the strongest economy in the Baltic States. However, the best results in tourism indicators have been found in Estonia. Therefore, correlation analysis has been performed to know if the relationship between tourism and economic growth in the Baltic States exists, what direction it has and how strong it is.

### **Conclusions**

The research fills the literature gap that lacks tourism and economic growth interaction investigations for the Baltic States by disclosing the relationship between tourism and economic growth in Lithuania, Latvia and Estonia. Addressing the scientific novelty, current study covers the problem raising from the COVID-19 pandemic affected tourism sector and caused economic downturn by evaluating the relationship between tourism and economic growth in the Baltic States looking for a direction to revive the economy and to stimulate economic growth.

The results of correlation analysis reveal statistically significant relationship between tourism and economic growth in Lithuania and in Estonia. A very strong positive relationship between expenditure and GDP as well as between expenditure and employment, have been found in Lithuania. The analysis of Estonia reveals the same trend – expenditure and GDP, as well as expenditure and employment, correlated in strongly positive relationship. In Latvia, no statistically significant results have been found. Summing

up, in Lithuania and Estonia tourism and economy has a strong positive relationship, what means, when tourism has an increasing trend, country's economy is growing as well. If tourism has an economic impact and if it is positively related with economy, the support of tourism should lead to the increase of the economy. Therefore, tourism in Lithuania and Estonia could be confirmed as a possible tool for economic growth. This analysis could be useful in the Baltic States political and economic decision making as it could lead to the solutions to thrive the countries' economy, what after the COVID-19 pandemic crisis period is an essential issue. It could be a base looking for a tool to revive the country's economy after the crisis as pandemic as well as looking for solutions to stimulate economic growth. As in two Baltic countries tourism is found to be related with the economic growth, political (e.g., support for T&T sector, favourable law decisions et al.) and economic decisions (financial support for T&T sector in the times of the crisis and after, subsidies for employers and employees, tax deferral for business and self-employed et al.) supporting tourism may be taken here to help to restore the tourism and to stimulate the economic growth.

Stating the limitations, the data analysis consists past period data, therefore it does not reveal the T&T sector and economic growth situation after the COVID-19 pandemic. This kind of analysis shows if the relationship between tourism and economic growth in the Baltic States exists, it discloses the direction and the strength of the relationship, though it does not let to evaluate causality between

variables. Therefore, the study may be expanded by including additional data and causality analysis method. That kind of research would reveal whether tourism is a driving force for the economy or developing economy contributes to tourism growth. It could better help for country's authorities and decision-makers to make a solution how to better manage both, tourism, and economic growth. Current study is the first step towards the tangible practical implications that would need more deeper analysis and research suggesting the possible moves or an action plan for the reviving the economy, leading to economic growth or supporting the tourism.

It is recommended to expand further research by: adding latest statistical data to make research more relevant to current state (including the data of post-pandemic period, as it may address this research problem even more clear); including the method of causal analysis to disclose the causality between investigated tourism and economic variables (e.g. Granger causality test) to better anticipate the direction of possible solutions and actions to reviving the economy and to stimulate economic growth by supporting tourism; complementing the study suggesting possible tangible solutions for reviving the economy in the Baltic States by supporting tourism to better disclose practical applicability of the research; analysing more deepen the situation in each Baltic country and highlighting the action plan how to reach for economic revive and how to stimulate economic growth by supporting tourism to reveal tangible practical applicability of the research giving the recommendations to macro-level political and economy decision-makers.

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