



Research Paper

Research on international cooperation of Ukraine tourism based on "The Belt and Road Initiative"

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ABSTRACT

The study summarized the development status of Ukraine tourism and analyzed the characteristics and necessity of Ukraine tourism international cooperation based on the strategy of "The Belt and Road Initiative". As a result, the author has put forward how to seize the opportunities and meet the challenges of Ukraine's tourism industry. It is rationally the best way to carry out international cooperation scientifically.

Key words: "The Belt and Road Initiative", tourism, economic growth, international cooperation.

INTRODUCTION

Economic integration is one of the strategic goals of "The Belt and Road Initiative", which is to build a mutually beneficial community of interests. As a point on the "The Belt and Road Initiative" line, Ukraine cannot develop in any field without international cooperation. According to Na (2018), tourism is a low-cost industry for a country to promote economic development and international cooperation in tourism development. Tourism can better promote economic development for Ukraine. Xiaohui (2019) provided that "The Belt and Road Initiative" is the best way for Ukraine to promote its self development. Yongming (2017) mentioned in his article that Ukraine has greater advantages in nature tourism, mainly in Crimea, the black sea and Carpathians (Jinza, 2018). Ukraine should take the initiative to seize this opportunity of international cooperation, and work with the rest of the world to prosper together and promote rapid and sustainable economic development. The world tourism federation is showing strong momentum and tourism can create a positive image of a country, optimize the balance of income and expenditure, ensure an increase in GDP, and promote infrastructure development, including transportation and communications. According to the projections of the world travel and tourism council (WTTC), the contribution of tourism activities to GDP should increase by 4.1 per cent annually from 2019 to 420 billion rufner (1.8% of GDP) by 2025 (Xiaohui, 2019).

In 2018, total revenue from travel services was 16.935.3 billion UAH, including commissions, agency fees and other fees -- 384.2 million UAH. Meanwhile, operating expenses incurred by tourism entities were 12.408.1 billion Ukrainian UAH (A Statistical Report on Tourism Operators, 2018).

THEORY OF INTERNATIONAL COOPERATION

International cooperation is of great significance to the survival and development of the international community and the whole mankind. It is not only a slogan and an act, but also a theory. The theoretical research of international cooperation contains three core questions:

- (1) What is the purpose of international cooperation?
- (2) What are the ways of international cooperation?
- (3) What is the value of international cooperation?

Three core questions constitute the three dimensions of international cooperation theory. International cooperation has two main purposes: the interest demand at the national level and the order demand at the system level. The nature of the theory of cooperation is reflected in the demand for order and the basic attitude of a country towards the international order.

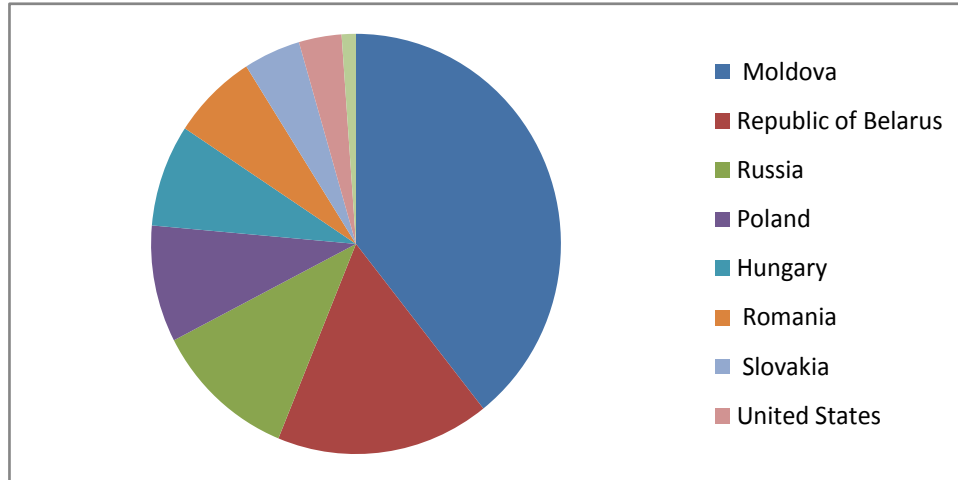


Figure 1: Distribution of inbound tourism in Ukraine.

Table 1: Top10 Number of tourists to Ukraine in 2018.

The serial number	country	The number of people
1	Egypt	902600
2	Turkey	515582
3	Turkmenistan	297744
4	India	284956
5	China	243729
6	USA	230462
7	Lebanon	229484
8	United arab emirates	115887
9	Belarus	66400
10	Germany	41576

The value of international cooperation is the outcome dimension of the cooperation theory, that is, the development and progress that international cooperation can bring to the reality of international relations. The three dimensions of cooperation theory are progressive and reversible. International tourism cooperation can bring economic development of the whole country and even the world, and is an important way to improve national strength, so cooperation is necessary and possible.

The development of tourism in Ukraine

The development of tourism in Ukraine is conducive to the increase of local employment opportunities. For every 1,000 tourists, there are 1,000 jobs guaranteed (200 in tourism enterprises and 800 in related industries), while the cost of establishing a job in tourism enterprises is about 20 times lower than that in the industrial range. Tourism is a major source of foreign exchange earnings because it exports services to foreigners (Na, 2018).

The **Figure 1** and **Table 1** show the large number of

foreign tourists that has been to Ukraine in recent years, which shows that the tourist attractions in Ukraine are still very attractive. In 2016, the simplified visa process for Chinese tourists was started at the airports of "borispol" (Kiev) and "Odessa" in Ukraine, and the visa processing time was equal to 15 to 20 minutes. As a result, the flow of tourism from China has soared. At a press conference marking the 25th anniversary of China's diplomatic relations with Ukraine, Chinese ambassador John Dewey said the number of Chinese citizens visiting Ukraine from China in 2016 was 20,600, the highest number in the past 10 years. However, it must be admitted that most of the Chinese visitors to Ukraine are businessmen, while the number of tourists is only 536. If Ukraine underestimate China's huge market then Ukraine will lose hundreds of billions of dollars in profits. According to the world travel and tourism council, Chinese people increased their spending in foreign countries by more than 10% after 2004, and by 25% in 2019 to \$2920 billion. According to this, the flow of outbound tourism in China is expected to exceed 200 million people by 2021, and the relevant investment will reach 3 trillion yuan (over 3.4 billion us dollars). The

Table 2: Initial data for empirical research.

Year	GDP (Unit:10million\$)	TI(Tourism Income) (Unit: million\$)	L(Labor input) (Unit: million \$)	K(capital input)(Unit: 10million \$)
2013	1833.10	5931	9158.3	37147.5
2014	1335.03	2264	8926.1	49114.7
2015	910.31	1662	8603.7	27290.5
2016	933.56	1723	10450.7	14098.9
2017	1121.90	2019	12354.8	27621.1
2018	1308.32	2269	11633.2	34321.4
2019	1540.43	3477	12833.8	43720.3

simplification of the visa system has boosted tourist flows from China. Historically, the largest number of foreigners entering Ukraine has been from border countries, whose share has gradually declined from 85.5 to 80.7% since 2016.

Data released by the China tourism academy shows that it has become easier for Chinese tourists to travel to Europe as a number of new routes to Europe have been opened across China. In the first half of 2019, 3 million Chinese tourists visited Europe. Central and eastern Europe and the silk road countries are getting a lot of attention. Key silk road hubs such as Georgia, Armenia and Azerbaijan and Ukraine are also becoming popular destinations for Chinese tourists, according to booking data from brilliance CITS.

EMPIRICAL RESEARCH

Variable selection and modeling

Under the background of international cooperation under the "The Belt And Road Initiative", the development of tourism in Ukraine has better promoted the rapid economic growth. To analyze the source of economic growth, we must know the main driving force of economic growth. Neoclassical economic theory argues that economic growth depends on three factors: labor, capital, and technological progress. Because of the limitation of labor, the marginal return of capital is in a decreasing state, which means that the economy is stable, and the stable economic state depends on the exogenous technology. This study mainly examined the relationship between Ukraine tourism and economic growth. The main model of economic growth is Cobb-Douglas production function.

$$Y=AL^{\alpha}K^{\beta}$$

Where Y is total output and K is capital stock (representing the fixed asset investment stock in the economy), L refers to human capital (representing labor input), A as other influencing factors (examples, technological innovation, industrial restructuring, etc.), $A > 0$, α indicates the share of labor contribution in total production ($0 < \alpha < 1$), β

indicates the share of capital contribution in total production ($0 < \beta < 1$), $\alpha + \beta = 1$. Now we add tourism to the production function and we get the following econometric models:

$$Y=AT^{\gamma}L^{\alpha}K^{\beta}$$

T is the tourism income variable and γ contributes to the share of the total assets. Considering the economic significance of the data, the linear model is obtained by taking the logarithm on both sides of the equation at the same time.

$$\ln Y = \ln A + \ln T^{\gamma} + \ln L^{\alpha} + \ln K^{\beta}$$

γ , α and β respectively represent the contribution rate of each factor to the total assets, and bring in the related variables further. We get the final measurement model as follows:

$$\ln Y = \beta_0 + \beta_1 \ln T + \beta_2 \ln L + \beta_3 \ln K + \mu$$

$\ln A = \beta_0$, Y residents' annual total income, $\beta_0 - \beta_3$ as regression coefficient, μ as residual term. Therefore, this formula can be used to calculate the relationship between Ukraine tourism and economic growth.

Data collection and regression analysis

From the Statistical Yearbook of the Ukraine Government and a statistical report on tourism operators in 2019, we can get the following data as shown in Table 2. Based on the data given in Table 2, we can see that the explanatory variables are different from the statistical units of the explained variables, so we used the STATA software to take the natural logarithm of each variable, and the results are shown in Table 3.

According to the data of 2013-2019, we used the software Eviews to fit and analyze the explanatory variables and the explained variables given in Figure 2. Further, we can see that each variable is on the rising trend, and the development of tourism and economic growth tends to be

Table 3: Graphic trend analysis.

	Y	TI	L	K	lnY	lnTI	lnL	lnK
1	1833.1	5931	9158.3	37147.5	7.513764	8.687948	9.122416	10.52265
2	1335.03	2264	8926.1	49114.7	7.196709	7.724888	9.096735	10.80191
3	910.31	1662	8603.7	27290.5	6.813785	7.415777	9.059948	10.21429
4	933.56	1723	10450.7	14098.9	6.839005	7.451822	9.254424	9.553852
5	1121.9	2019	12354.8	27621.1	7.022779	7.610358	9.4218	10.22634
6	1308.32	2269	11633.2	34321.4	7.176499	7.727095	9.361618	10.44352
7	1540.43	3477	12833.8	43720.3	7.339817	8.153925	9.459838	10.68557

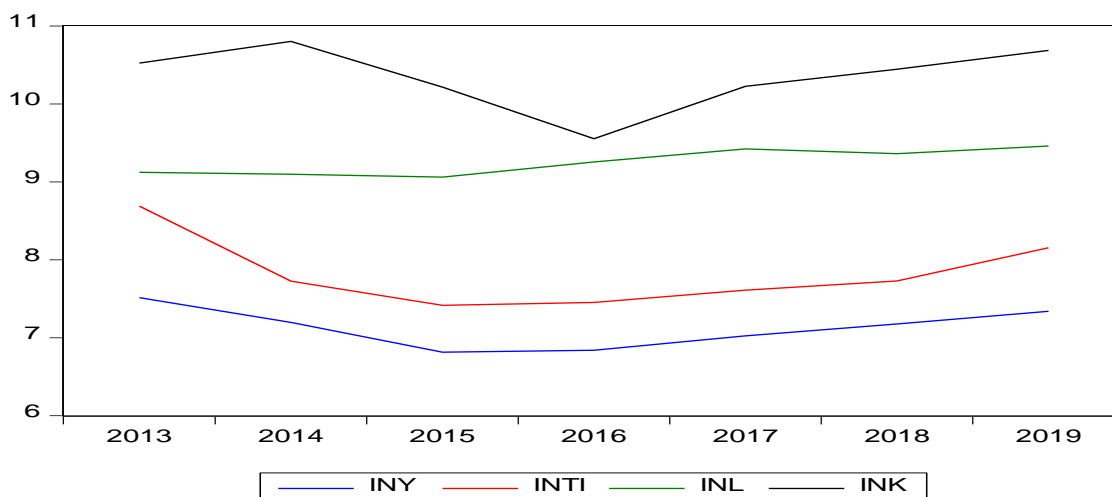


Figure 2: Data of 2013-2019 using Eviews software.

Table 4: OLS estimated parameters.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0149106	1.700340	-0.087692	0.9356
INTI	0.433225	0.070769	6.121662	0.0088
INL	0.193030	0.166175	1.161609	0.3294
INK	0.203092	0.077472	2.621501	0.0789
R-squared	0.966017	Mean dependent var		7.128908
Adjusted R-squared	0.932034	S.D. dependent var		0.256277
S.E. of regression	0.066812	Akaike info criterion		-2.278295
Sum squared resid	0.013392	Schwarz criterion		-2.309204
Log likelihood	11.97403	Hannan-Quinn criter.		-2.660319
F-statistic	28.42629	Durbin-Watson stat		3.328770
Prob (F-statistic)	0.010526			

consistent as shown in **Figure 2**. From regression results given in **Table 4**, we conclude that:

Table 5: The result of white tests.

Heteroskedasticity Test: White				
F-statistic	1.638594	Prob.F (3,3)		0.3474
Obs*R-squared	4.347072	Prob.Chi Square (3)		0.2263
Scaled explained SS	0.296603	Prob. Chi Square (3)		0.9607
Test Equation:				
Dependent Variable: RESID^2				
Method: Least Squares				
Date: 06/19/20 Time: 05:49				
Sample: 2013 2019				
Included observations: 7				
Variable	Coefficient	Std. Error	t-statistic	Prob.
C	0.024986	0.019804	1.261665	0.2962
INTI^2	-0.000188	0.000101	-1.860221	0.1598
INL^2	-0.000248	0.000208	-1.191958	0.3190
INK^2	9.08E-05	8.76E-05	1.036154	0.3763
R-squared	0.621010	Mean dependent var		0.001913
Adjusted R-squared	0.242021	S.D. dependent var		0.001781
S.E. of regression	0.001551	Akaike info criterion		-9.804693
Sum squared resid	7.21E-06	Schwarz criterion		-9.835601
Log likelihood	38.31643	Hannan-Quinn criter		-10.18672
F-statistic	1.638594	Durbin-watson stat		2.501851
Prob (F-statistic)	0.347443			

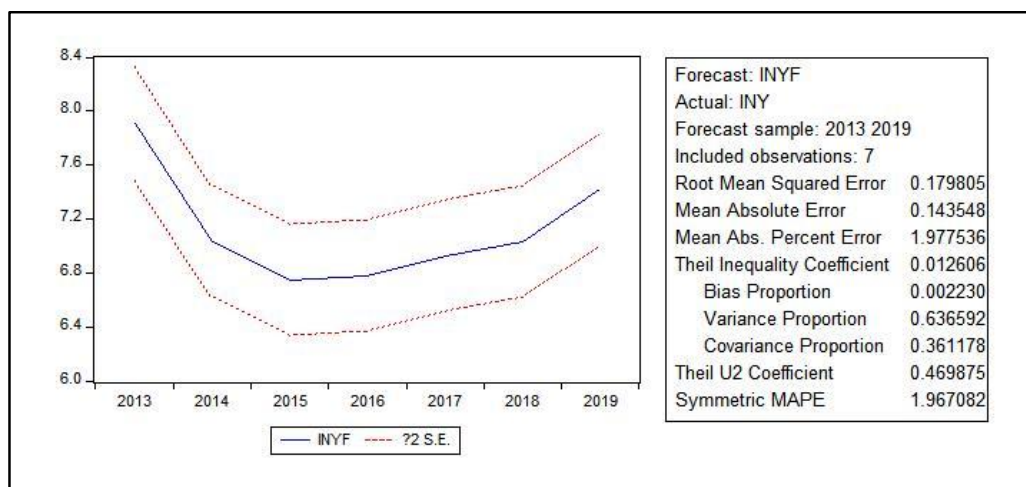


Figure 3: Forecast of tourism development and economic growth.

$$\ln Y = 0.149106 + 0.433225 \ln T + 0.193030 \ln L + 0.203092 \ln K + \mu$$

$$(-0.087692) (6.121662) (1.161609) (2.621501)$$

From the above formula, we can see that when the tourism income increases by 1 unit, the national economic growth is 0.433225, which means that there is a close relationship between the growth of tourism and economic growth.

White's test results presented in Table 5 showed that the P-value of 0.2263 significantly rejected the original hypothesis, so the regression effect of the model was better.

$$R\text{-squared} = 0.966017 \quad S.E. \text{ of regression} = 0.066812 \quad F\text{-}$$

$$\text{statistic} = 28.42629$$

T-test: look at T1 = 6.121662, T2 = 1.161609, T3 = 2.621501. The threshold value of t-bilateral test with freedom of 7-4 = 3, at the level of 5% significance.

Then we knew that the coefficient t-test of some explanatory variables is significant and passes the T-test. Therefore, we can conclude that the development of tourism industry can better promote economic growth and increase farmers' income. we forecast tourism development and economic growth and draw the following figures as shown in Figure 3.

Through the forecast of tourism development and

economic growth data for 2013-2019, we can see that the economy has been in a growing trend since 2015, from which we concluded that development of tourism can promote the sustainable development of the economy. Therefore, under the Belt and Road strategy, the development of tourism in Ukraine can better achieve economic growth.

DISCUSSION

The need for tourism to participate in international cooperation

Tourism is the leading industry of the "The Belt and Road Initiative" strategy and an important basis for promoting economic and trade exchanges and cooperation. There are certain foundations and conditions for international cooperation in Ukraine tourism, which is in line with the objective requirements and needs of the country in implementing the "The Belt and Road Initiative" strategy. Cooperation is the main theme of development. On the basis of the implementation of the "regional" strategy and the international commercial cooperation, we should cooperate with the "regional" countries to become the port of international tourism cooperation. Determined by the international development trend of tourism, tourism itself is a mutually cooperative industry, not to mention international tourism. With the development of the world economy and the increase in people's income, the desire to leave their homes and businesses outside the world is becoming stronger and stronger, and the rapid growing number of inbound and outbound tourists from China can explain everything. If tourism enterprises intend to develop themselves, they have to participate in international tourism cooperation which is a great opportunity for international tourism and cannot be given up by Ukrainian tourism enterprises.

Strategies for tourism to participate in international cooperation

Firstly, Ukraine tourism international cooperation must highlight the brand highlights. "The Belt and Road Initiative" is a big stage for China to carry out international cooperation with other countries in the world. The implementation of this strategy will bring unprecedented opportunities and excellent opportunities for Ukraine's tourism industry. To participate in international cooperation, the tourism industry must have its own unique natural resources, unique cultural resources or unique enterprise advantages. Secondly, there are many tourist attractions in Ukraine that are worth seeing, for example, Kiev, and The chernobyl nuclear power plant museum, the great patriotic war memorial in Kiev is located in the

kaposk district of Kiev, then there is donetsk, a famous sports city in Ukraine with a developed infrastructure and many international tournaments. Ukraine should rely on the unique nature and human's own country, they should take the culture as the bridge, jointly create the tourism cultural creativity and develop the natural and cultural beauty of international tourism. International tourism cooperation is the use of their own history, culture, local, and human resources, in accordance with the requirements of precise positioning, prominent features, beautiful artistic conception, cooperation and development, forming an international tourism cooperation to jointly establish and share the road.

Thirdly, strong financial, human and material support has provided more opportunities for international cooperation in Ukraine's tourism industry. Ukraine will develop silk road tourism and promote tourism cooperation through connectivity. Ukraine earnestly studies national and international tourism and other relevant policies. "The Belt And Road Initiative" countries have a large population and rich tourism resources, with tens of thousands of tourists visiting everywhere. The cooperation between Ukrainian tourism enterprises and other countries is bound to enrich and diversify tourism resources, make tourism products more competitive and attractive, and further enhance the strength of enterprises. International tourism cooperation has strengthened cultural exchanges and personnel exchanges among countries around the world. This is beneficial because it will lead to the spread of national culture, and showcase Ukraine to the world. By participating in international cooperation, Ukraine's tourism industry will spread the country's local customs and culture to the rest of the world.

CONCLUSION

Opportunities for international cooperation in tourism

"The Belt and Road Initiative" provides an opportunity for the international route of Ukraine tourism. Through international tourism cooperation, it exposes Ukraine's tourism industry, tourism culture to the world, and showcases Ukraine's tourism brand to the world. International cooperation has put Ukraine's tourism industry on the world stage and contributed to Ukraine's position in the world tourism industry. It is a good way to learn from the international advanced ideas. In the tourism international cooperation environment under the "The Belt and Road Initiative" strategy, Ukraine's international tourism is going global, which also provides a good opportunity for domestic tourism enterprises to learn from the advanced experience of other countries. It enables cooperation become a good way for tourism enterprises to develop and improve. The participation of Ukraine's tourism industry in international tourism cooperation is

bound to become an important link in the outward expansion and dissemination of Ukrainian culture, so that people around the world can feel the essence of Ukrainian culture and understand the world's outstanding culture. Hence we reached the following conclusions:

(1) The service quality of Ukrainian tourism enterprises meets the requirements of international tourism cooperation. In the important opportunity period of the "The Belt and Road Initiative" strategy, the Ukrainian tourism industry can seize the opportunity of international tourism cooperation, strengthen the cooperation, expand the business and channels, and expand the market of supply and demand. Tourism service quality is an important part of the cooperation, related to both sides or the image of both sides in the hearts of tourists and society. Ukrainian tourism enterprises can take advantage of the situation, and seize the opportunity.

(2) Ukrainian tourism enterprises should accelerate tourism cooperation with all countries in the world and improve their strength and influence of their tourism industry. Ukraine's tourism industry in line with the purpose of cooperation with the rest of the world "go out, please come in". How to grasp the development trend and direction of world tourism, cooperation is the key to the success of cooperation, and a question of testing the development and development of tourism in Ukraine too.

(3) The path of international cooperation in Ukraine's tourism industry should first take culture as its soul, highlight its characteristics and actively integrate into it. "The Belt and Road Initiative" strategy emphasizes providing services for the promotion of other industries with the help of cultural exchanges and services. Therefore, international tourism should take the country's cultural products and services as a platform to display the essence and charm of Ukrainian culture, and subtly let people around the world understand and identify with it. All countries and tourism enterprises should actively participate in this theme, and work with domestic and foreign enterprises to expand and deepen cultural cooperation, closely around the culture, tourism family, grasp the pace of integrated development of cultural tourism industry, and actively promote it to the world. In addition, it is necessary to make scientific planning and reasonable layout to form a tourism industrial area with Ukrainian characteristics.

(4) Build a platform and strengthen cooperation. "The Belt and Road Initiative" is a common cause of relevant

countries and regions. Ukrainian tourism enterprises should strengthen management exchanges and focus on building a platform for foreign tourism exchanges and cooperation. The Ukrainian government should try its best to introduce and borrow excellent tourism resources and management services at home and abroad, and make frank and in-depth exchanges of experience, and make bold attempts. Ukraine has the advantages of convenient transportation and abundant human resources. With the help of resource advantages, Ukraine strives to expand the market and promote the development of international tourism. Under the "One Belt and One Road" strategy, tourism enterprises make use of these advantages to focus on the expansion of foreign cooperation and promotion, and strive to develop the international tourism business in an export-oriented way. As of January 1, 2019, 2,737 travel permits were issued to enterprises engaged in tourism activities, according to the tourism operators' activity theme registration by the ministry of economic development and trade of Ukraine. To consider and discuss Ukrainian unique tourism resources, and how to promote tourism products to the world and enter the vision of the world's people through "Internet +", e-commerce platform and other means.

In one word, to promote better international cooperation and develop Ukraine's tourism industry, Ukraine should accelerate the supply-side structural reform of tourism industry and improve the supply of products. Coordinated progress should be made in tourism space distribution and public services and the quality of tourism development should be improved significantly.

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