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Econometric analysis on the relationship between agritourism development and economic growth - the case of central plains economic zone of China

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The main problem for farmers in China is the search for possible ways to maximize income. Especially relevant today is tourism, which has a broad reach and deep connections with many fields of the national economy. Agritourism in China has recently undergone significant development, expansion and renewal. As part of the Belt and Road Initiative, active rural development and other activities are being undertaken to improve a promising investment environment for tourism. The development of tourism products that integrated with the agricultural sector is becoming a promising form of cooperation with the rural population in the future. Eco-agriculture tourism is a new direction for farmers. The development of eco-agriculture not only contributes to the optimization and adaptation of the agricultural structure, increasing in the added value of agricultural products, but also contributes to the development of services, economic and technological cooperation, the exchange and inflow of funds into the country's economy. It is a new way of strengthening the connection between urban and rural areas, improving the general condition of farmers, developing agricultural infrastructure and creating a harmonious environment between man and nature.

As the development of the Central Plains Economic Zone has become part of a national strategy, the development of tourism in the Central Plains Economic Zone has a great potential. In the Central Plains, where natural conditions are better, the development of a local agro-tourism economy as a starting point can greatly increase farmers' incomes, since the development of agritourism can promote the development of related industries and facilitate the optimization and modernization of industrial structures. This can improve infrastructure, save farmers' production costs, increase farmers' employment. The transfer of surplus agricultural labor may also contribute to the realization of a harmonious sustainable economic and environmental development. Taking as an example the economic zone of the Central Plains, the main task of this article is to study the relationship between the development of eco-logical-agricultural tourism and economic growth, which substantiates the new trend of national economic development. This article regards the Central Plains Economic Zone as a research object and uses the econometric method of analyzing and examining the relationship between tourism development and economic growth in the Central Plains Economic Zone. Eco-farming is a new outlet for farmers. The development of eco-agricultural tourism will not only help to optimize and adjust the structure of agriculture, increase the added value of agricultural products, but will also promote the development of services, economic and technological cooperation, attract additional investments, will also promote the development of catering, hospitality, economy tourism products and real estate, thus contributing to the growth of agriculture as a whole. To analyze the source of economic growth, we need to know the main driving force behind economic growth. Neoclassical economic theory argues that economic growth depends on

three factors: labor, capital, and technological progress. The main model of economic growth is the production function of Cobb-Douglas with the addition of variable income from tourism. Stata software was used for empirical analysis of the model.

Keywords: agritourism, sustainable development, economic growth, environment, social development, economic development.

Formulation of the problem. The biggest problem of farmers in China is how to maximize their income. Tourism is a comprehensive industry with strong relevance and wide coverage, which has a profound connection with many industries of the national economy. Since the construction of the Central Plains Economic Area has become a national strategy, the development of tourism in the Central Plains Economic Area is bound to make a new breakthrough. In the Central Plains, where the natural conditions are better, the development of local economy with agritourism as the starting point can effectively increase the income of farmers, because the development of agritourism can promote the development of related industries and promote the optimization and upgrading of industrial structure. It can improve infrastructure, save farmers' production costs, increase farmers' employment, the transfer of surplus agricultural labor force can also promote ecological protection and sustainable development of the economy, which is an effective way to realize the harmonious development of economy and ecology. The economic development of the Central Plains Economic Area lags behind that of the eastern coastal areas, and the Farmers' income is relatively low, but the tourism resources of the Central Plains Economic Area are relatively rich, and the development of agritourism also has a certain foundation. Therefore, taking the Central Plains Economic Zone as an example, it is typical to study the relationship between eco-agricultural tourism and economic growth, which better explains the new trend of national economic development.

Analysis of recent research and publications. In 1982, Massisen and Walr put forward the concept of tourism multiplier, which is a coefficient used to measure the degree of influence of unit tourism consumption on various economic phenomena in tourist reception areas, which refers to output and income. The ratio of changes in employment and government taxes to initial changes in tourism spending. They believe that the tourism multiplier is a value that multiplies the initial tourism consumption to produce a total income effect over a certain period of time. Economist Archer also It is pointed out that the theory of tourism multiplier is to study the effect of tourism development on local regional economic growth. The general tourist multiplier is positively

correlated with the tourists' expenses and with the local economic level. The theory of tourism multiplier provides a certain scientific basis for governments to formulate tourism policies and can effectively calculate the contribution of tourism industry to the national economy. We also need to realize that the theory of tourism multiplier is only a macro-economic concept, and any country should have a deep understanding of the details of tourism economic activity. In view of the corresponding deficiency of multiplier, Telfer and Wall put forward the theory of income shifting analysis (ISA). If the tourism destination wants to maximize the economic benefits brought by tourism development, it is necessary to strengthen the development of tourism. For example, more local food is sold in tourist local hotels to stimulate the development of the local agricultural and food processing industries. Kruetwzies believes that tourists' spending will generate direct, indirect and induced income between families and different sectors of the local industry. A form of circulation, such as loss of revenue, etc. The method of flow analysis shows more clearly that the internal components of tourism are affected by the economic development of tourism.

The aim of the study. China's rural tourism has experienced the initial period, development period, expansion period and upgrade period, from the past small tourism, mid-tourism into the era of big tourism. With the national "Belt and Road" initiative, beautiful rural construction and other measures to promote the future tourism investment environment will continue to improve. The development of rural tourism products integrated with leisure agriculture has become the form of rural cooperation in the future.

Eco-agricultural tourism is a new way out for farmers. The development of eco-agricultural tourism is not only conducive to the optimization and adjustment of the agricultural structure, the increase in the added value of agricultural products, but also conducive to the development of the service industry, the promotion of economic and technological cooperation and exchange, and the introduction of funds. Technical talents drive the development of catering, hotel, transportation, tourism products processing industry and real estate industry, thus promoting the growth of agricultural quantity and the leap of quality. Ecological agriculture tourism is regarded as

a global "sunrise industry". The new measures to promote the sustained, rapid and healthy development of the economy when developing eco-agricultural sightseeing tourism are an important way to promote the promotion of famous and excellent special products, and to build nests. It is a new way to strengthen the communication between urban and rural areas, to improve the overall quality of farmers, to adjust the agricultural industrial structure and to build a harmonious environment between man and nature. Is the construction socialism new countryside, realizes the agricultural modernization the important factor.

General situation of Rural Tourism Development in Central Plains Economic Zone. The Central Plains Economic Zone is dominated by the whole country, including Henan province, southeastern Shanxi, southern Hebei, southwest Shandong and northwest Anhui, with the Central Plains urban agglomeration as its support, its geographical location is obvious, its grain superiority is great, and the market development is full of momentum. The culture is rich. It has a remarkable strategic position in the overall situation of national reform and development and has been formally written into the National Twelfth five-year Plan in order to achieve agricultural modernization, industrialization, urbanization, and informatization to or near the national average level. Comprehensive economic strength is significantly enhanced, urban and rural development is basically balanced, and public service awareness is enhanced.

The idea and layout of the Central Plains Economic Zone is to exclude the rise of the administrative region and change it into a

development route of the strategic rise of the Economic Zone, taking the rapid development and transforming development as the fundamental task, taking Zhengzhou Metropolitan area as the core, and the Central Plains urban agglomeration as the support. The economic area covering Henan province extends to the surrounding cities, the geographical position is important, the transportation is developed, the market potential is huge, the culture is deep. Central Plains Economic Zone as a national strategy, clearly positioned, committed to exploring new development paths, deepening reform and opening up, building industrialization, urbanization and agricultural modernization of the coordinated development of the "three regions" demonstration areas, important economic growth plate, Synthesis Transportation hub and logistics center, the goal of the core area of the heritage of Chinese historical civilization.

Material and methods of research. Overview of the advantages of the Central Plains Economic Zone is considered due to the method of comparative advantaged, PEST analysis method. A theoretical analysis of Eco-tourism to rural economic growth conducted with using multiplier theory, income shifting analysis, value-added theory. Empirical Research of relationship between agricultural tourism and economic growth was made with using regression analysis. Analyzing the advantages of the region, we can distinguish the following:

Traffic Advantage. Located in the hinterland of our country, connecting east-west and north-south, it is the intersection area of land bridge passage and Beijing-Guangzhou corridor in the strategic pattern of "two horizontal and three

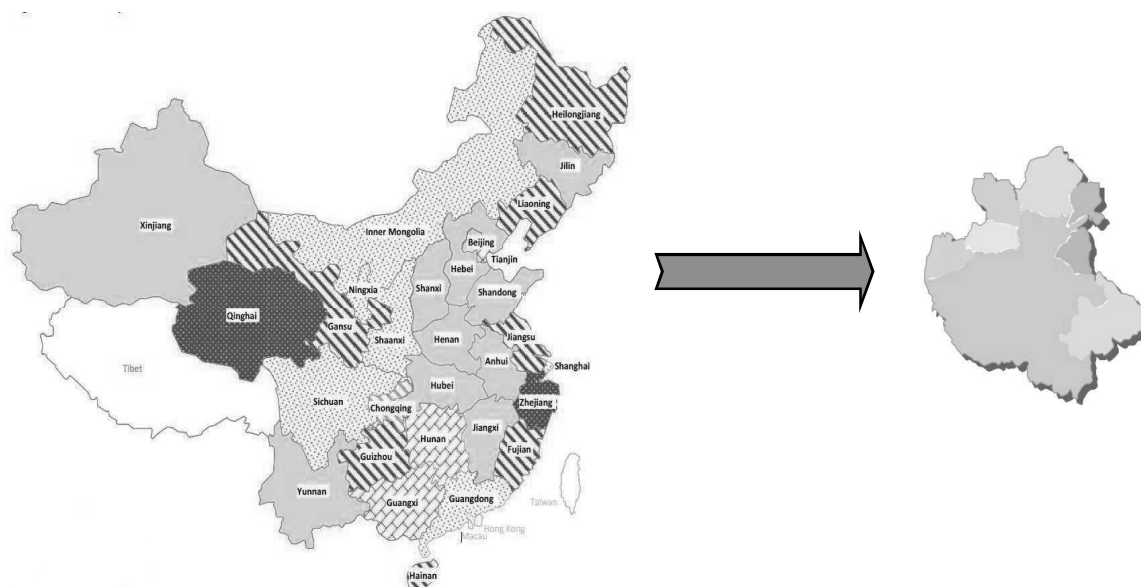


Fig. 1. The Map of China and Central Plains Economic Zone.

Source: National Bureau of Statistics of the people's Republic of China.

longitudinal" urbanization. Railway mileage and highway mileage account for a very high proportion in the country, and the number of civilian airports is increasing continuously. It is an important transportation route in the national comprehensive transportation network. According to the advantages above, strengthen comprehensive planning and guide, consolidate and improve Zhengzhou comprehensive transportation hub status; to transport such as railway, highway, aviation and waterway network construction, so that transport smooth, efficient and convenient; Construction and implementation of largescale Transportation and Logistics Strategy and Construction of National Modern Logistics Center It also introduces the third-party logistics enterprises to improve the logistics distribution problems, accelerate the construction of information network facilities, promote the development of the Internet, implement the application demonstration project of the Internet of things in key areas, and improve the level of information service in agricultural and rural areas. Through the implementation of the above planning can better reflect the traffic advantages of the Central Plains Economic Zone.

Food Chain Advantage. The agricultural production conditions are superior, our country supply important agricultural product for main production area, the geographical area is large, the terrain is the plain, four normal seasons, rich water resources, there is no dry land, main crops are wheat and corn. The grain output is large, with wheat yield of 54 million tons, close to 50 percent of the country's output; cotton, oil, livestock and poultry production accounted for 18.4 percent, 20.5 percent, 14.8 percent of the country's output, and the proportion of characteristic agricultural and forestry products in the country is large.

Industrial Base. As an important energy and raw material base in the country, mineral resources are rich, coal, aluminum, gold, natural alkali and other resources are abundant, which provide the development of industry in the region. Long-term development constitutes a certain industrial foundation.

Huge Market Potential. The urbanization rate of the region is rather high, reaching 40.6 %. Industrialization process accelerates urbanization and provides wide space for investment and consumption demand, and growing market advantages. With the times, the quality of citizens' labor force has been improved, and this region is one of the most abundant areas of labor resources in China. Rapid development of open economy, all-round opening pattern gradually formed.

Profound Cultural Heritage. Central Plains is an important birthplace of the Chinese nation and

Chinese civilization, has a long history, and has a large number of valuable historical and cultural heritages. For example, Henan is the main birthplace of the Chinese nation and Chinese civilization. The compass, papermaking and gunpowder techniques of the four great inventions in ancient China were all invented in Henan. In history, there were more than 20 dynasties in which the capital was built or moved to Henan, and there were four in Henan, the eight ancient capitals of China. It is the largest capital in China in the dynasty, the longest in history and the largest in the number of ancient capitals. There are many cultural relics and monuments, and abundant tourist resources. Formed an all-inclusive, flexible and innovative culture of the Central Plains, which is soft and soft.

Tourism Analysis of Central Plains Tourism area based on PEST Analysis. A good macro environment is the premise for the establishment and development of tourism. It is the basic condition for the survival and development of tourism in a country or region. Therefore, we use PEST analysis to analyze the Politics, Economy, Society and Technology in the tourism industry in the Central Plains.

Political. China's rural tourism has experienced the initial stage, the development period, the expansion period and the upgrading period, from the past small tourism, medium tourism into the era of big tourism. With the promotion of the national "Belt and Road" initiative, beautiful rural construction and other measures, the future tourism investment environment continues to improve. At the national level: first of all, the views of the "State Council of the CPC Central Committee on the implementation of the Rural Revitalization Strategy explicitly" put forward the "implementation of quality projects for leisure agriculture and rural tourism, and the creation of a number of demonstration villages and towns with characteristic eco-tourism and excellent routes. "To create green eco-environmental protection of rural eco-tourism industry chain. Secondly, the "13th five-year Plan for Tourism Development" issued by the State Council also requires that " through the development of rural tourism, the development of leisure agriculture and rural tourism should be promoted. The Ministry of Agriculture also encourages all localities to actively cultivate local brands. 2018 China's beautiful rural leisure tourism promotion activities to promote leisure agriculture and rural tourism boutique attractions to the whole society 56 And put forward to base on leisure agriculture and rural tourism high-quality project, carry out leisure agriculture and rural tourism upgrade action. Rural tourism is ushered in a strategic opportunity period of transformation and upgrading in the new era.

At the regional level: the State Council issued the "guidance to support Henan Province in speeding up the Construction of the Central Plains Economic Zone" and incorporated tourism into the planning, providing better policy support for the rapid development of tourism in cities in the Central Plains Economic Zone. At the same time, it also provides a broader platform for the development and expansion of tourism industry and the start-up of tourism activities in the Central Plains Economic Zone.

Economic. The rapid development of the economy is the foundation and pre-requisite for the development of tourism. The GDP in 2018

The Central Plains Economic Zone has been developed rapidly with the great development of the national economy. From figure 4, we can see that the GDP level of the Central Plains Economic Zone is constantly rising.

At the same time, the development of the economic zone brings vitality to the development of tourism, and provides a good economic basis for the development of tourism. In figure 5, it can be seen that the tourism income of the economic zone increases year by year from 2015 to 2018.

Figure 6 shows that most of the tourism resources in the Central Plains Economic Zone are concentrated in the central region of the

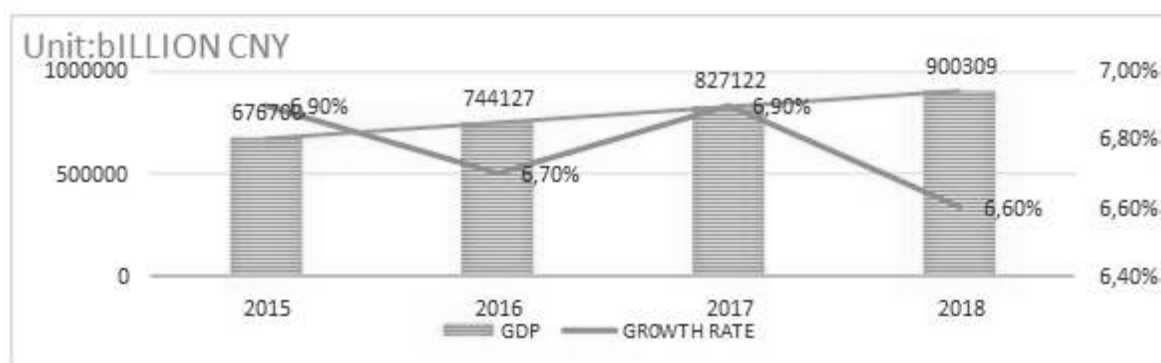


Fig. 2. The 2015-2018 national GDP and the growth proportion chart.

Source: calculated by authors with using data of National Bureau of Statistics of the people's Republic of China.

was 90.0309 trillion Yuan, an increase of 6.6 % over 2017. The net income of rural residents was 14617 Yuan, an increase of 8.8 percent over 2017, while the net income of urban residents was 39251 Yuan, an increase of 7.8 percent over 2017. With the rise of GDP, residents' income will also increase. And when residents' income increases, people's spending on tourism will also increase.

Economic Zone, with relatively few tourism resources around it, while the central part belongs to the interior of Henan Province, and most of the tourism resources in Henan Province are located in Zhengzhou City and Xinxiang City, Luoyang City etc., further explained that Henan Province is rich in tourism resources.

Society. With the acceleration of urbanization, the rapid economic growth and the continuous

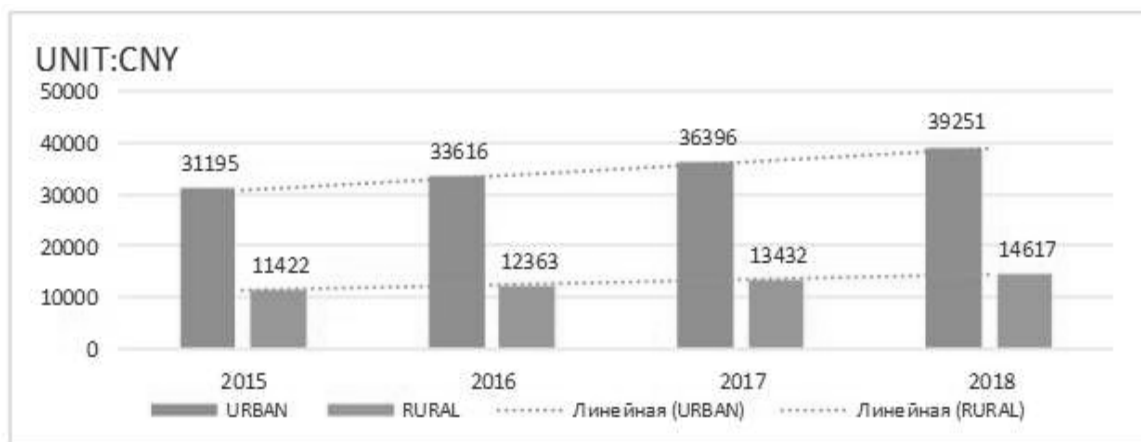


Fig 3. The 2015-2018 Chinese residence income.

Source: calculated by authors with using data of National Bureau of Statistics of the people's Republic of China.

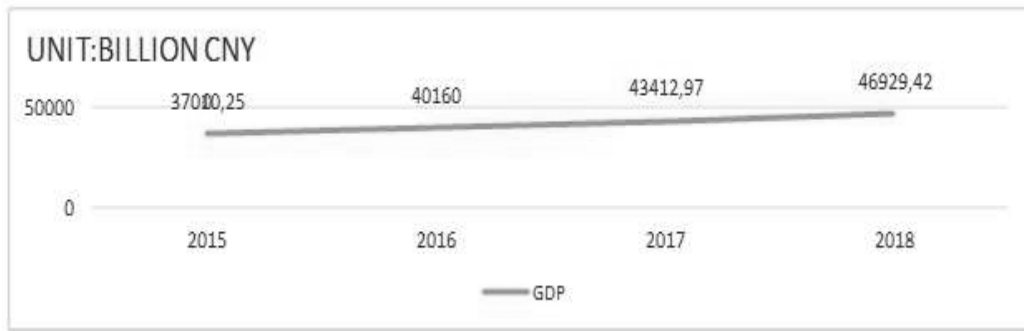


Fig. 4. The 2015-2018 GDP trend of Central Plains Economics Area.

Source: calculated by authors with using data of National Bureau of Statistics of the people's Republic of China.



Fig. 5. The 2015-2018 Tourism Income of Central Plains Economics.

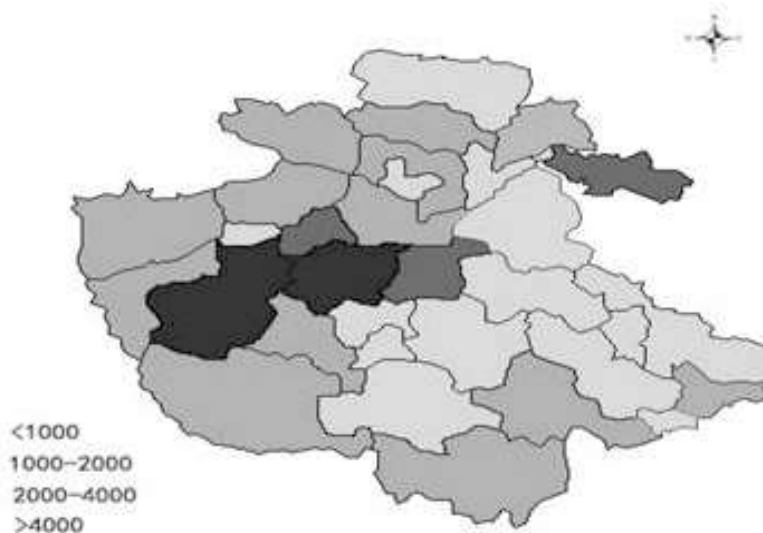


Fig. 6. The distribution of Central Plains Economics Area around the city of domestic tourism passenger flow volume spatial in 2018.

Source: National Bureau of Statistics of the people's Republic of China.

development of tourism have played a great role in promoting. China's urbanization is in a period of accelerated development. The fast-paced way of life has brought great pressure to people.

More and more people will choose to return to natural life and enjoy the fun of nature. The rapid development of science and technology, but also promote the convenient means of travel.

Various holidays and holidays in China have also become boosters of tourism development, and the State Council has drawn up a series of holidays, giving people more leisure time. For example: mid-Autumn Festival, Dragon Boat Festival, National Day, Spring Festival, etc.

Technology. Science and technology is a double-edged sword, the development of tourism cannot be separated from the support of science and technology. In the information age, scientific information technology brings more opportunities to the development of tourism. At the same time, the invention and application of more software make it convenient for people to search for tourism information, and inject new vitality into the development of tourism. In terms of education, there are 2000 universities across the country that specializes in tourism management. There are also many universities in the Central Plains Economic Zone, such as Zhengzhou University, Henan normal University, and Henan Agricultural University. Henan University of Science and Technology has set up tourism management college and tourism management specialty, so as to cultivate more tourism.

Empirical Research. 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 paper mainly studies the relationship between agricultural 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 (e.g. 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 eco-tourism and economic growth.

Table 1 – Initial data for empirical research

Year	Average GDP (Unit: CNY)	TI (Unit: Billion CNY)	L (Unit: CNY)	K (Unit: CNY)
2011	28661.00	2000.00	44130	2399.55
2012	31499.00	3364.10	47544	2786.17
2013	34211.49	3875.50	50932	3293.03
2014	37071.72	4366.20	52476	3917.96
2015	39122.61	5035.29	56376	5278.89
2016	42575.00	5764.06	60242	6780.45
2017	46674.00	6751.00	66037	8855.45
2018	50127.21	7690.00	68213	9232.23

Source: calculated by authors with using data of Statistical Yearbook of the Chinese Government and the Statistical Yearbook of Henan Province.

Main results of the study. Combined with the above data, we use Stata soft-ware to make an empirical analysis of the model. Considering the collinearity and unit differences among the influence variables, we quote for each variable. Least Squares Regression Estimation, because of the lack of data, we adopt a small sample regression model. Based on the above table, we can obtain the following da-ta model:

$$\ln Y = -0.8006822 + 0.0715443 \ln T + 0.9645228 \ln L + 0.0255825 \ln K + \mu$$

From the above formula, we can see that when the tourism income increases by 1 unit, the national economic growth is 0.0715443, which means that there is a close relationship between the growth of tourism and economic growth.

Through the fitting curve of three influencing factors: tourism income, labor input, financial investment and economic growth we can see that all three factors show an upward trend with income. Moreover, the growth trend between the development of tourism industry and economic growth is obviously higher than that of other influencing factors, which further demonstrates that there is a close relationship between the development of tourism and economic growth.

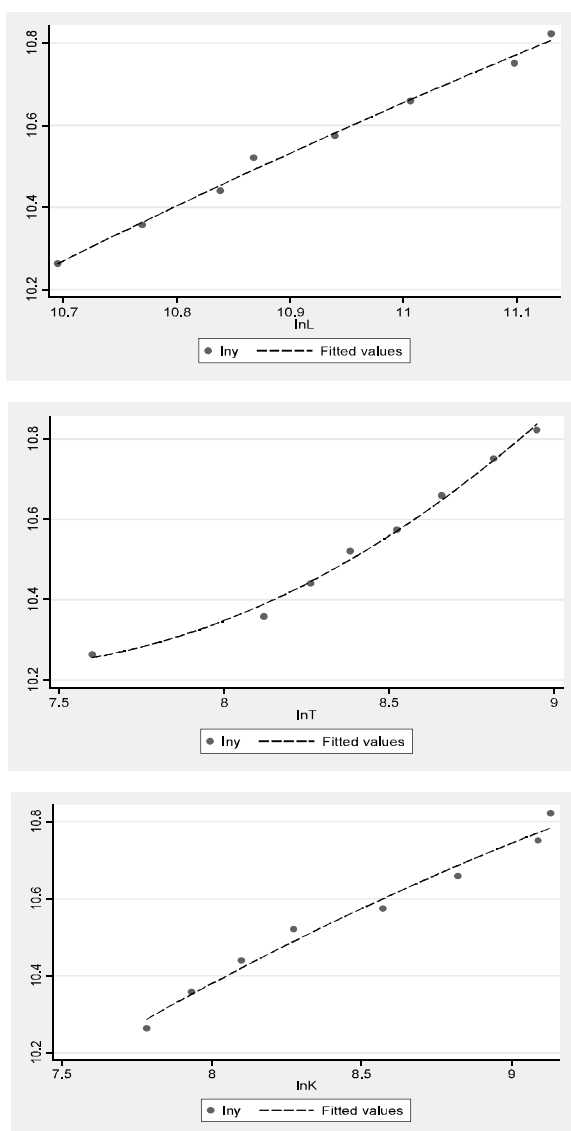


Fig. 7–9. Diagrams are respectively: tourism income, labor input, financial investment and economic growth curve regression analysis.

Source: calculated by authors.

White's test results showed that the P value of 0.3326 significantly rejected the original hypothesis, so the regression effect of the model was better.

R-squared = 0.9940

Adj R-squared = 0.9895

F (3, 4) = 221.42

T-test: look at T1 = 0.87, T2 = 1.44, T3 = 0.16, the threshold value of t-bilateral test with freedom of 8-4 = 4, at the level of 5 % significance.

Then we know 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.

Conclusions and policy recommendations. With the rise of the Central Plains Economic Zone

as a national strategy, the Central Plains region has ushered in a new era of development. While the economy is developing rapidly, it has brought good development opportunities to the Central Plains tourism. This paper takes the Central Plains Economic Zone as the research object and uses the econometric method to analyze and study the relationship between tourism development and economic growth in the Central Plains Economic Zone, and draws the following conclusions:

1. From the background of regional tourism development in the Central Plains Economic Zone, the development advantages of the economic zone are summarized, and the strength of economic zone development is expounded. It is concluded that the tourism resources of the Central Plains Economic Zone are rich and high-quality, the tourism industry is developing well, and the regional economic development momentum is strong.

2. Using econometric research methods to analyze the relationship between tourism and economic growth in the Central Plains economic region, there is a significant correlation between regional tourism development and economic growth. Tourism revenue can have a causal relationship with economic growth, so we draw an regional tourism development can effectively promote economic growth of the whole country.

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Економетричний аналіз співвідношення розвитку агротуризму та економічного росту КНР

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Найголовнішою проблемою фермерів у Китаї є пошук можливих шляхів максимізації доходу. Особливо актуальною галуззю на сьогодні є туризм, який має широке охоплення та глибокий зв'язок із багатьма галузями національної економіки. Агротуризм Китаю останнім часом зазнав значного розвитку, поширення і оновлення. В рамках національної ініціативи «Один пояс – один шлях» проводиться активна забудова в сільській місцевості та інші заходи для покращення перспективного інвестиційного середовища в туризм. Розвиток туристичних продуктів, інтегрованих з аграрною сферою, стає перспективною формою кооперації з сільським населенням в майбутньому. Еко-сільськогосподарський туризм – новий напрям розвитку для фермерів. Розвиток еко-сільськогосподарського туризму не тільки сприяє оптимізації та адаптації сільськогосподарської структури, збільшенню доданої вартості сільськогосподарської продукції, але й сприяє розвитку сфери послуг, економічному та технологічному співробітництву, обміну та вливанню коштів в економіку країни. Це новий спосіб зміцнення зв'язку між міськими та сільськими районами, поліпшення загального стану фермерів, розвиток сільськогосподарської інфраструктури та створення гармонійного середовища між людиною та природою.

Оскільки розвиток економічної зони Центральної рівнини став частиною національної стратегії, розвиток туризму в Центральній рівнинній економічній зоні має великий потенціал. На Центральних рівнинах, де природні умови кращі, розвиток місцевої економіки з агротуризмом як вихідною точкою може значною мірою вплинути на збільшення доходів фермерів, оскільки агротуризм може сприяти розвитку суміжних галузей, оптимізації та модернізації промислової структури. Це може покращити інфраструктуру, заощадити виробничі витрати фермерів, збільшити зайнятість фермерів. Переведення надлишкової сільськогосподарської робочої сили також може сприяти реалізації гармонійного сталого розвитку економіки та екології. Беручи за приклад економічну зону Центральної рівнини, основним завданням статті є вивчення взаємозв'язку розвитку еколого-сільськогосподарського туризму та економічного зростання, що обґрунтує нову тенденцію національного економічного розвитку. Дана стаття сприймає економічну зону Центральної рівнини як об'єкт дослідження та використовує економетричний метод аналізу й вивчення взаємозв'язку між розвитком туризму та економічним зростанням в економічній зоні Центральних рівнин. Еко-сільськогосподарський туризм – це новий вихід для фермерів. Розвиток еко-сільськогосподарського туризму сприятиме не лише оптимізації та налагодженню структури сільського господарства, збільшенню доданої вартості сільськогосподарської продукції, а й розвитку сфери послуг, економічному та технологічному співробітництву, залученню додаткових інвестицій. Також сприятиме розвитку громадського харчування,

готельного господарства, транспорту, переробної промисловості туристичної продукції та галузі нерухомості, тобто зростанню сільського господарства в цілому. Для аналізу джерела економічного зростання необхідно знати головну рушійну силу економічного зростання. Нео-класична економічна теорія стверджує, що економічне зростання залежить від трьох чинників: праці, капіталу та технологічного прогресу. Основною моделлю економічного зростання є виробнича функція Кобба-Дугласа з додаванням в модель змінної доходу від туризму. Для емпіричного аналізу моделі було використано програмне забезпечення Stata.

Ключові слова: агротуризм, стійкий розвиток, навколишнє середовище, соціальний розвиток, економічний розвиток, економетричний аналіз.

Економетрический анализ соотношения развития агротуризма и экономического роста КНР

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Самой главной проблемой фермеров в Китае является поиск возможных путей максимизации дохода. Особенно актуальной отраслью сегодня является туризм, который имеет широкий охват и глубокую связь со многими отраслями национальной экономики. Агротуризм Китая в последнее время претерпел значительное развитие, распространение и обновление. В рамках национальной инициативы «Один пояс – один путь» проводится активная застройка в сельской местности и другие меры для улучшения перспективной инвестиционной среды в туризм. Развитие туристических продуктов, интегрированных с аграрной сферой, становится перспективной формой кооперации с сельским населением в будущем. Эко-сельскохозяйственный туризм – новое направление развития для фермеров. Развитие эко-сельскохозяйственного туризма не только способствует оптимизации и адаптации сельскохозяйственной структуры, увеличению добавленной стоимости сельскохозяйственной продукции, но и способствует развитию сферы услуг, экономическому и технологическому сотрудничеству, обмену и вливанню средств в экономику страны. Это новый способ укрепления связи между городскими и сельскими районами, улучшение общего состояния фермеров, развитие сельскохозяйственной инфраструктуры и создания гармоничной среды между человеком и природой.

Поскольку развитие экономической зоны Центральной равнины стало частью национальной стратегии, развитие туризма в Центральной равнинной экономической зоне имеет большой потенциал. На Центральных равнинах, где природные условия лучше, развитие местной экономики с агротуризмом как исходной точкой может в значительной степени повлиять на увеличение доходов фермеров, поскольку агротуризм может способствовать развитию смежных отраслей, оптимизации и модернизации промышленной структуры. Это может улучшить инфраструктуру, сэкономить производственные затраты фермеров, увеличить занятость фермеров. Перевод избыточной сельскохозяйственной рабочей силы также может способствовать реализации гармоничного устойчивого развития экономики и экологии. Принимая в качестве примера экономическую зону Центральной равнины, основной задачей статьи является изучение взаимосвязи развития эколого-сельскохозяйственного туризма и

экономического роста, что обоснует новую тенденцию национального экономического развития. Данная статья воспринимает экономическую зону Центральной равнины как объект исследования и использует эконометрический метод анализа и изучения взаимосвязи между развитием туризма и экономическим ростом в экономической зоне Центральных равнин. Эко-сельскохозяйственный туризм – это новый выход для фермеров. Развитие эко-сельскохозяйственного туризма будет способствовать не только оптимизации и настройке структуры сельского хозяйства, увеличению добавленной стоимости сельскохозяйственной продукции, но и развитию сферы услуг, экономическому и технологическому сотрудничеству, привлечению дополнительных инвестиций. Также будет способствовать развитию общественного питания, гостиничного хозяйства,

транспорта, перерабатывающей промышленности туристической продукции и отрасли недвижимости, то есть росту сельского хозяйства в целом. Для анализа источника экономического роста необходимо знать главную движущую силу экономического роста. Неоклассическая экономическая теория утверждает, что экономический рост зависит от трех факторов: труда, капитала и технологического прогресса. Основной моделью экономического роста является производственная функция Кобба-Дугласа с добавлением в модель переменной дохода от туризма. Для эмпирического анализа модели было использовано программное обеспечение Stata.

Ключевые слова: агротуризм, устойчивое развитие, окружающая среда, социальное развитие, экономическое развитие, эконометрический анализ.



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