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## TOURISM EFFICIENCY AND INFLUENCING FACTORS OF COUNTY-LEVEL CITIES IN HENAN PROVINCE

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By constructing an evaluation index system, the DEA-BBC model is adopted to measure the country tourism efficiency of Henan Province in 2017. There are 28 counties and cities in Henan Province as the research object and its influencing factors analyzed. The results show that : (1) the tourism efficiency of the 28 counties and cities in Henan province is not ideal, and there are differences among them; (2) most counties and cities are still in the stage of increasing returns to scale, and still need to expand their scale by increasing the input of production factors.

**Keywords:** county; tourism efficiency; DEA; influencing factors.

## ЭФФЕКТИВНОСТЬ ТУРИЗМА И ФАКТОРЫ, ВЛИЯЮЩИЕ НА НЕЁ, ДЛЯ НЕБОЛЬШИХ ГОРОДОВ ПРОВИНЦИИ ХЭНАНЬ

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Основанная на оценочной системе индексов, модель DEA-BBC была применена для измерения эффективности туризма в провинции Хэнань в 2017 году. Объектом исследования являлись 28 уездов и городов провинции Хэнань. Результаты исследования показывают, что: (1) эффективность туризма в 28 уездах и городах провинции Хэнань невысокая и неоднородная; (2) большинство уездов и городов все еще находятся на стадии увеличения отдачи от масштаба и все еще нуждаются в расширении бизнеса за счет ввода новых производственных факторов.

**Ключевые слова:** округ; эффективность туризма; DEA; влияющие факторы.

After more than 40 years of development, China's tourism industry plays a role in promoting economic growth. Counties are important in realizing rural revitalization, promoting regional development, and building a modern economic system. As a small-scale regional tourism form, County tourism is a new engine to advance the county economy. County tourism has been paid more and more attention by local governments and is a new research direction for scholars. As the birthplace of Chinese civilization, the economic efficiency of county tourism in Henan province remains further studied.

As an emerging form of tourism, County tourism caters to the development of The Times, especially after the COVID-19 epidemic, international and provincial travel policy bottlenecks, short-distance tourism has become the first choice for people to travel. Simply, county tourism is a regional tourism development form in which tourism activities take place in county administrative units and local county characteristic tourism resources as attractions to provide tourists with tourism leisure life experience [1]. Originally used to indicate the level of energy loss during mechanical action, efficiency has been applied in many fields such as economy, management, and ecology [2]. For the definition of tourism efficiency, although scholars have different research objects, they mainly explain the connotation of the ratio of input and output from the economic field. In this regard, this paper believes that tourism efficiency refers to the ratio of the input and output of tourism production units within a certain period, and its size represents the utilization degree and level of resources, aiming at maximizing the output under the given input [3]. As early as the 1980s, some scholars began to discuss efficiency. The academic circle has carried out plenty of studies on tourism efficiency, with fruitful results now. In terms of research sequence, foreign countries started earlier, with a small number of research pieces of literature appearing from 1980 to 2000. From 2001 to 2010, relevant research was started in China with few research results. After 2011, it entered a period of rapid development with the number gradually leading [4].

The research content has been continuously deepened, from the early discussion on whether the efficient operation and management of tourism enterprises are effective to the essential causes of efficiency, and gradually involves the tourism ecological efficiency [5], tourism poverty alleviation efficiency [6], and their related coupling studies. It mainly focuses on the spatial-temporal evolution characteristics, influencing factors, and regional differences of regional tourism [7].

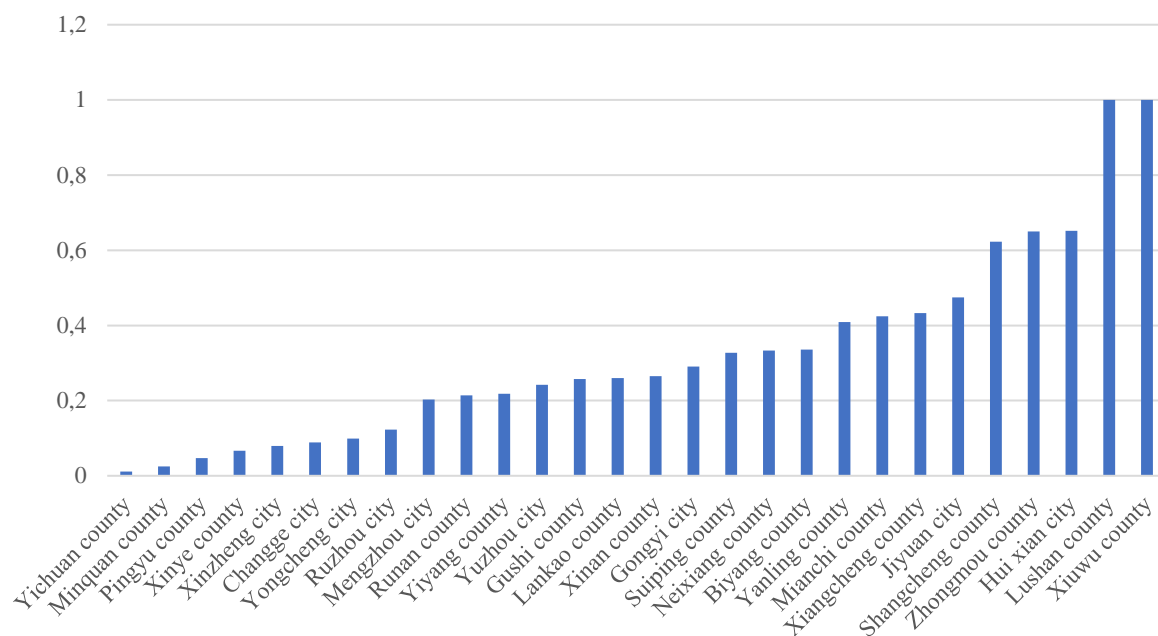


Figure 1 – Histogram of total efficiency

Source: compiled by the author.

According to Figure 1, 28 counties and cities are divided into four groups. (1) There are 8 counties and cities with an efficiency value below 0.2, accounting for 28.6 % of the total, and their efficiency level is very low. The analysis shows that although the proportion of the three

industries in these counties has gradually increased, the development of the whole county is almost still dominated by the secondary industry, and tourism is not its main project. (2) There are 15 counties and cities with efficiency values between 0.2 and 0.5, accounting for 53.6 % of the total, and the tourism development in this region has great potential. These counties and cities have good tourism resources or traffic conditions and can be further developed. (3) Zhongmu, Shangcheng, and Huixian are in the range of 0.5–0.8, accounting for 10.7 % of the total. Their efficiency is well utilized and investment in the tourism process has been well utilized. (4) The area between 0.8–1 is the optimal one in Lushan and Xiuwu counties, accounting for 7.1 % of the total. The resources in Lushan and Xiuwu counties are rationally allocated and effectively utilized, without causing waste of resources.

In 2017, the tourism efficiency level of 28 counties and cities in Henan Province was generally low, with significant differences among counties and cities. The average efficiency was 0.327, and only two counties reached the optimal level. 57.1 % of the regions were in an invalid state of resource utilization. The maximum value of efficiency is 1, the minimum value is 0.011, and the range is as high as 0.989, showing a wide gap. It shows that in the process of tourism products, the uneconomical and wasteful utilization of resources is widespread, and the tourism input and output need to be optimized.

Most counties and cities are still in the stage of increasing returns to scale. They still need to scale up to get higher returns by continuing to increase inputs to factors of production. Zhongmu and Jiyuan, which are in the stage of diminishing returns on the scale, need to properly reduce the scale, optimize resource allocation, reduce the waste of resources and improve efficiency.

Scale efficiency is the key to tourism efficiency. According to the two-dimensional scatter diagram and goodness of fit function, both technical efficiency, and scale efficiency have a certain influence on the total efficiency, among which, scale efficiency has a stronger influence on the total efficiency than technical efficiency. The overall level of technical efficiency is relatively high, but the impact degree is slightly small. The focus of attention should be inclined to the improvement of scale efficiency, and tourism efficiency can be improved by increasing factor input and expanding production.

Moreover, the influencing factors of efficiency involve various aspects, and there are unpredictable and unquantifiable external factors, so it can only reflect the influence of certain factors to a general extent. In the future, the research time can be updated to 2019, 2020, or earlier years, and relevant missing data can be filled through field visits and questionnaire surveys, etc., or the influencing factors can be quantitatively analyzed by constantly trying to adjust the model to make the analysis results more scientific and real. After the county tourism development gradually matures, counties and cities unit related statistics may be more comprehensive, detailed, then can make more detailed to all counties and cities in Henan province and the efficiency of the complete analysis, five years or more) can be time series for a comparison of the section, namely analyzing the space-time evolution characteristics, predict the future trend of development.

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## ОСОБЕННОСТИ ФУНКЦИОНИРОВАНИЯ ОРГАНИЗАЦИЙ ПИЩЕВОЙ ПРОМЫШЛЕННОСТИ В УСЛОВИЯХ ГЛОБАЛИЗАЦИИ

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Статья посвящена особенностям функционирования организаций пищевой промышленности на мировом рынке в условиях глобализации. Рассмотрены тенденции развития транснациональных корпораций в продовольственной сфере.

**Ключевые слова:** пищевая промышленность; продовольственная конкурентоспособность; транснациональные корпорации.

## THE DISTINGUISHING FEATURES OF FOOD ENTERPRISES IN CONDITIONS OF GLOBALIZATION

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The article is devoted to features of functioning of food enterprises on the world market in the terms of globalization. The tendencies of transnational corporations development in food industry is examined.

**Keywords:** food industry; food competitiveness; transnational corporations.

Для обеспечения и поддержания высокого уровня конкурентоспособности предприятий пищевой промышленности как внутреннем, так и на внешнем рынках возникает необходимость постоянного поиска эффективных форм и методов адаптации к быстро изменяющимся условиям под влиянием глобализационных процессов. Основной стратегией пищевых производств в настоящее время является завоевание и удержание конкурентных позиций на мировых рынках.

Пищевая промышленность – одна из стратегических, социально-значимых отраслей экономики, призванная устойчиво снабжать население необходимыми по количеству и качеству продуктами питания, т. е. обеспечивать продовольственную безопасность страны. Согласно мировым рейтингам пищевая промышленность имеет положительную динамику развития.

Пищевая промышленность функционирует под влиянием двух основных факторов: продовольственная безопасность и продовольственная конкурентоспособность.