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The Impact of a Legalized Business Environment on the Development of the Digital Economy Industry

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Abstract

The world has officially entered the era of digital economy, which is mainly characterized by data empowerment, interconnection of all things, and intelligence drive, and promoting the orderly and healthy development of digital economy is a matter of national interest. However, how to implement the strategy of building business environment in the perspective of digital economy needs to be supported by empirical research. This study statistically analyzes the national provincial panel data, aiming to draw reliable conclusions with application value and put forward feasible policy recommendations for the construction of business environment. It is found that a single dimension does not have a significant impact on the development of the digital economy, but when combined with other factors, such as market openness and fair competition, the group analysis will have a significant impact on promoting the development of the digital economy. Based on this, we believe that in the process of promoting the construction of business environment, it is necessary to combine various market factors and utilize the joint efforts of all the main bodies, not only the top-level design, but also the corresponding infrastructure to ensure that the system is put into practice.

Keywords

Digital Economy; Entrepreneurship and Innovation; Doing Business; Legal System.

1. Introduction

Entering the 21st century, with the popularization of the Internet and breakthroughs in digital technology, the digital economy has been developing rapidly, promoting the extensive reorganization of resources, and becoming an important element of resources and a new driving force for development on a global scale. At present, the digital economy has become the new engine of China's economic growth, and is an important force driving the country's economic development . The sustained and stable growth of the digital economy can effectively promote the construction of a new development pattern of double-cycle and improve China's international competitiveness.

From a domestic perspective, with the continuous development and application of digital technology, the demand for digitization has shown explosive growth, and China's huge market has provided great impetus for the development of the digital economy era. From an international perspective, developed countries and economic entities such as the United States, the United Kingdom, Germany and the European Union have elevated the digital economy to a national strategy and formulated relevant policies to promote the development of the digital economy. Under the dual incentives of national vigorous promotion and digital economy dividend, the total number of new entrepreneurial subjects in China has been rising. However, even though the total volume of China's digital economy has ranked among the top in the world, the problems of insufficient innovation vitality and large regional development gap have not

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yet been completely solved, which also restricts the release of digital economy dividend to a certain extent.

The advent of the digital economy era has raised greater challenges and higher requirements for the construction of the business environment. Unlike the traditional real economy which mainly relies on energy and materials, the digital economy has the characteristics of high dependence on Internet information technology, wide industrial penetration and combination, high development potential and risk uncertainty, high demand for personnel positions and staff rejuvenation, which determines that the digital economy is more sensitive to the business environment and puts forward higher requirements for the optimization of the business environment.

2. Analysis of the Impact of the Business Environment on the Development of the Digital Economy

2.1. Regression Analysis of Baseline Data

Based on the established literature (Yang Jin and Zhang Pan, 2018) , this paper tries to construct the following panel data regression model:

$$innov\_index_{it} = \alpha_0 + \beta_1 law_{it} + \beta_2 market_{it} + \beta_3 govern_{it} + \beta_4 cultural_{it} + prov_i + year_t + \mu_{it}$$

In the above equation, innov_index denotes the level of innovation and entrepreneurship in the core industries of the digital economy, which is used to measure the level of digital economy development in each province; law, market, government, and cultural denote the influencing factors of digital economy development, which are measured by the fair and transparent legal and policy environments, fair and competitive market environments, efficient and clean governmental environments and open and inclusive human environment to measure; βk is the estimated coefficient (k=1,2,...,4); α0 is the constant term; provi is the province fixed effect, yeart is the year fixed effect, and μit is the random perturbation term; i is the province, i=1, 2,...,31; t is the year, t=2017, 2018, ..., 2020. in the above model, legal policy environment, market environment, governmental environment and humanistic environment are the first-level indicators of business environment. Political, economic and cultural social factors of all kinds may have an impact on the level of digital economy development, with LAW as the core explanatory variable and all the rest as control variables. This idea will be used in the panel regression.

The following table reports the results associated with the baseline regression model. In particular, column 1 shows the results of ordinary OLS estimation, columns 2 and 3 show the results for fixed provinces and fixed years, respectively, and column 4 shows the province-year double fixed effects model. Based on the above tests, the estimation results in column 4 prevail in this paper. It can be found that the coefficients of the core explanatory variables are not significant, indicating that a single factor does not have a significant effect on the innovation and entrepreneurship indicators of the core industries of the digital economy. This indicates that there is a complex causal relationship between the business environment and the development of digital economy industry, and only multiple co-promotion can lead the development of digital industry . In addition, among other control variables, the market environmentmarket coefficient is significant at the 1% level, and every 1 unit increase in the level of market environment will lead to a 24.1% increase in the level of development of the core industries of the digital economy, indicating that the improvement of the market

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competition environment in recent years is still one of the important reasons for the development of the digital industry.

Table 1. Benchmark regression results

variant	(1)	(2)	(3)	(4)
	innov_index	innov_index	innov_index	innov_index
law	0.051	0.050	-0.093	-0.054
	(0.042)	(0.039)	(0.086)	(0.093)
market	0.648***	0.411***	0.673***	0.241***
	(0.062)	(0.089)	(0.063)	(0.040)
govern	0.705***	0.004	0.892***	0.016
	(0.129)	(0.015)	(0.061)	(0.028)
cultural	0.281***	-0.120***	0.291***	-0.061
	(0.045)	(0.019)	(0.043)	(0.036)
constant term (math.)	-12.488	59.182***	-19.233***	62.077***
	(7.765)	(1.054)	(5.168)	(3.146)
sample size	124	124	124	124
Province fixed	NO	YES	NO	YSE
Year fixed	NO	NO	YES	YES
R2	0.556	0.191	0.600	0.269

Note: *, **, and *** indicate significant at the 10%, 5%, and 1% levels, respectively, with standard errors in parentheses.

2.2. Further Necessity Analysis

In terms of the discriminating criteria of the necessary conditions, this paper refers to the study of Du Yunzhou et al. (2020) and adopts 0.9 as the consistency threshold for the necessity analysis. As can be seen from the above table, the consistency of each element is lower than 0.9, i.e., including a single element is not a necessary condition to constitute a high-level digital economy or a low-level digital economy. This is also consistent with the results of the panel regression.

Table 2. Results of the necessity test (QCA)

antecedents	outcome variable			
	High-level digital economy		Non-high-level digital economy	
	consistency	degree of coverage	consistency	degree of coverage
market environment	0.778	0.858	0.473	0.477
~Market Environment	0.526	0.521	0.859	0.780
Government environment	0.815	0.794	0.564	0.503
~Government environment	0.490	0.551	0.736	0.704
legal policy	0.717	0.748	0.769	0.792
~Legal Policy	0.556	0.581	0.563	0.537
human environment	0.771	0.770	0.572	0.523
~Human Environment	0.522	0.571	0.748	0.750

In order to deeply explore whether and to what extent the environmental elements constitute the necessary conditions for jointly promoting innovation and entrepreneurship in the core industries of the digital economy, this paper further employs the NCA method for testing.

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Taken together, the effect amount of market environment, governmental environment and humanistic environment are all greater than 0.1 and significant, constituting the necessary conditions for innovation and entrepreneurship of the core industries of digital economy to different degrees; the effect amount of policy environment in the case of CE is less than 0.1, and the amount of utility to the digital economy is small. To achieve 20% of the level of innovation and entrepreneurship in the core industries of digital economy, 9.9% of the governmental environment is needed, and there is no bottleneck level of any other environmental elements; to achieve 80% of the level of innovation and entrepreneurship in the core industries of digital economy, 33% of the market environment, 45.7% of the governmental environment, 25.7% of the legal and policy environment, and 49.8% of the humanistic environment are needed.

3. Conclusion

After empirical analysis, we believe that a single factor in the business environment is not enough to play a key role in the development of the digital economy, the development of the digital economy is "multiple causes and one effect", and it is necessary to organically combine multiple factors in the business environment to jointly promote the innovation and entrepreneurship of the digital economy, such as financing facilitation, competition and fairness, and opening up to the outside world. The combination of factors will have a significant impact on the promotion of the development of the digital economy. combination will have a significant impact on promoting the development of the digital economy. The driving institutional system of economic development is the market economic system, property rights system, land system and technological innovation system. The development of the digital economy industry cannot be separated from a healthy institutional environment, but it is equally important not to neglect the market development, property rights protection, government approval and other aspects of the guarantee, so as to create a fair and healthy, orderly competition and open environment for the development of the digital economy industry. In addition, the construction of digital infrastructure, the degree of enterprise data sharing as well as data openness, the degree of digital support services, the number of digitized talents, and the cost, channels and methods of financing for enterprises will all affect and then determine the development of the digital economy industry. All these factors show that in the process of promoting the construction of business environment, it is necessary to comprehensively consider various factors, "to create a first-class business environment that is market-oriented, rule of law-oriented, and internationalized", and it is necessary to organically coordinate and combine multiple factors, not only top-level design, but also to ensure the sustainable development of the digital economy with the corresponding infrastructure. The digital economy should not only be designed at the top level, but also ensure the sustainable development of the digital economy with corresponding infrastructure.

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