

The Influence of Different Views on Mixed Ownership Reform on the Mixed Ownership Reform of State-Owned Enterprises in China Based on Internet Data Analysis

Huawei Wan^{1,2}

¹*School of Marxism, Hainan Vocational University of Science and Technology, Haikou, Hainan, 571126, China*

²*School of Marxism, Wuchang University of Technology, Wuhan, Hubei, 430223, China*

Keywords: Internet Data Analysis, Mixed Ownership, State-Owned Enterprises, Equity Adjustment

Abstract: State-owned enterprises, as enterprises owned, controlled and managed by the state, usually play an important role in the economic system in China, and are directly regulated and guided by the government or the state. Typically, these state-owned enterprises are responsible for achieving the country's strategic goals, but their management efficiency and economic performance have long been criticized. In order to change this situation, mixed ownership reform has been put forward, which tries to combine public ownership with private ownership, not only to protect state-owned assets from loss, but also to stimulate the development vitality of state-owned enterprises. This paper will analyse the different development directions and viewpoints of mixed ownership in China by means of Internet data analysis. In the visual statistics of the literature research direction of CNKI, "equity" is undoubtedly the keyword with the highest frequency in the specific reform direction, and the total number of studies involving this keyword in the research direction is 169. Since the adjustment of equity ownership is one of the main development directions of mixed ownership reform, its impact will also be very important. In addition, this paper also compares the sales of the two state-owned enterprises in China at the end. During the statistical period, the sales of enterprise A, which has gradually completed all the reforms, rose from 303 million yuan to 641 million yuan, while the sales of enterprise B, which has not completed the reforms temporarily, rose from 326 million yuan to 486 million yuan. The comparison results fully show that the mixed ownership reform can improve the management efficiency and even the production efficiency of enterprises, thus bringing a substantial increase in sales.

1. Introduction

Mixed ownership is a hybrid model that introduces market mechanisms into the economy while retaining a degree of state intervention, in which way the relationship between public interests and private economic activity can be balanced. At present, state-owned enterprises with slightly low production efficiency need this reform mode to promote their further development, so this paper

will analyze the impact of mixed ownership reform on state-owned enterprises from the perspective of Internet data.

This paper first analyzes the characteristics of state-owned enterprises, and then points out the necessity and feasibility of Internet data analysis. Then this paper finds out the most important direction of mixed ownership reform through the method of literature analysis, and summarizes and analyzes its views and impacts.

2. Related Work

As the main carrier of national economy, state-owned enterprises have been studied in an endless stream. Stone R W proposed that China had become the main source of foreign direct investment, and state-owned enterprises would be a tool to promote foreign policy [1]. Taking Polish state-owned enterprises as an example, Szarzec K pointed out that the change rate of managers and supervisory board members of state-owned enterprises was higher than that of private enterprises, which may lead to the unstable operation of state-owned enterprises [2]. In other words, state-owned enterprises still have some problems, and Ilham R N proposed that restructuring and privatization were the main ways to improve the efficiency and productivity of state-owned enterprises, and it was also necessary to specify the strategy of supervision and control of companies to improve the business success rate [3]. Zahid R MA's survey showed that state-owned enterprises were more likely to obtain equity financing from the stock market than non-state-owned enterprises [4]. Since the privatization of state-owned enterprises can improve the production efficiency of enterprises, its easier access to equity financing will undoubtedly help it carry out privatization reform [5].

However, overall privatization is an excessive reform method, and at present, promoting mixed ownership is the mainstream of state-owned enterprise reform. Su Z H proposed that mixed ownership reform could reduce the asset-liability ratio of state-owned enterprises and improve the owners' equity [6]. Wu N believes that through the method of state-owned capital participation in private enterprises, it can be found that mixed ownership can promote the poverty alleviation efforts of enterprises, so as to achieve certain social values [7]. Huang X S pointed out that digital economy was crucial to stimulate the production momentum of micro-entities and can also play a key role in promoting the high-quality development of macro-economy, and the management vitality within state-owned enterprises brought about by the mixed ownership reform can help the rapid popularization of digitalization [8]. It is obvious that mixed ownership, which combines public ownership and private ownership, is more suitable for the development of state-owned enterprises.

3. Method

3.1 Methods of Internet Data Analysis

As we all know, the vast majority of private enterprises are pure private ownership economy, and the public ownership system is difficult to develop. In state-owned enterprises, mixed ownership is usually the most common distribution system, which allows public and private ownership to complement each other, so as to better play their respective advantages in economic development. Zeng Z said in his research that during the COVID-19 pandemic, economic development was hit, and the special mode of operation of state-owned enterprises could enable them to play the role of so-called "economic stabilizer" [9]. In other words, the special characteristics of the mixed ownership of state-owned enterprises can ensure that they play a specific role in a specific economic status. In order to study the mixed ownership reform of state-owned enterprises, this

paper believes that it is necessary to analyze it from the perspective of Internet data. Bai HR analyzed the comprehensive attraction of tourist destinations from the perspective of Internet text data [10]. Generally speaking, Internet data is the data source with the widest coverage and the most content in the current era, and the analysis accuracy from this perspective is undoubtedly the highest. Therefore, researchers can obtain Internet data related to the mixed ownership reform of state-owned enterprises, including news reports, government policy documents, and enterprise announcements. In addition, the opinions of the public and relevant practitioners can also reflect the impact of the reform to a certain extent, that is, sentiment analysis technology is used to assess the reactions of the public and enterprises on the Internet, so as to understand the public opinion, corporate attitude and public sentiment. Moreover, official government departments will also issue policy reports through the official website, so that through the Internet, you can follow the policy changes issued by the government in real time and track the latest relevant information. Zong also said that in the context of economic globalization, the Internet had a vital impact on enterprises [11]. Therefore, it is entirely reasonable to snoop on the development of state-owned enterprises through Internet data.

Table 1: Changes in market size of network information security technology

Time (year)	Network security (Trillion yuan)	Information security (Trillion yuan)
2019	8362	5305
2020	9064	6794
2021	10037	8012
2022	11563	9164
2023	12781	10354

The market size changes of network information security technology are shown in Table 1. It is not difficult to see that in the past five years, the market size of network security and information security has been expanding, which is enough to show that the influence of the Internet on the current enterprise is expanding, so the investment in network security must also continue to increase.

3.2 Reform Direction of Mixed Ownership

The importance of Internet data has been demonstrated above, so this paper will take CNKI's literature data as the main entry point of Internet data analysis. The specific method is to input "mixed ownership reform of state-owned enterprises" as a keyword, and count the theme and analysis angle of all relevant literature, so as to verify the more recognized development direction in this research field. In this paper, only some thematic literatures with clear directions are selected to be included in this data visualization.

The change of the number of literatures of this type over time is shown in Figure 1. Through the changing trend of this type of literature, it is not difficult to see that 2014 can be regarded as the beginning of state-owned enterprises to promote mixed ownership reform, and gradually complete the reform and transformation during 2018-2022.

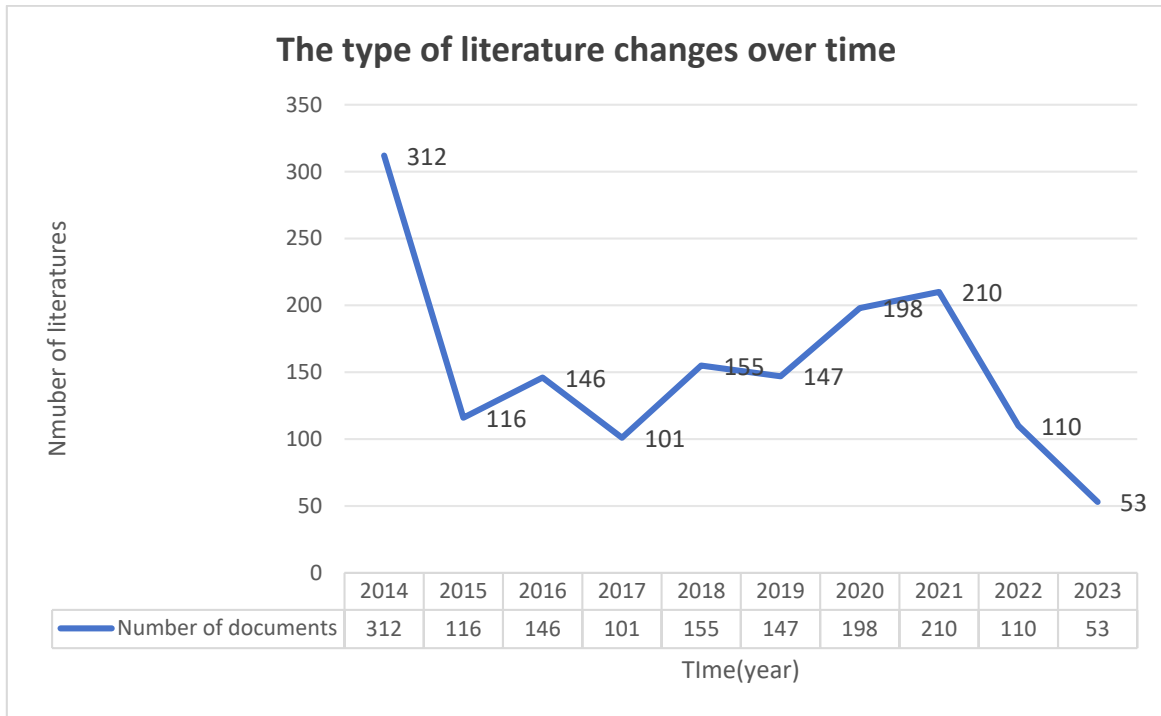


Figure 1: The change of the number of literatures of this type over time

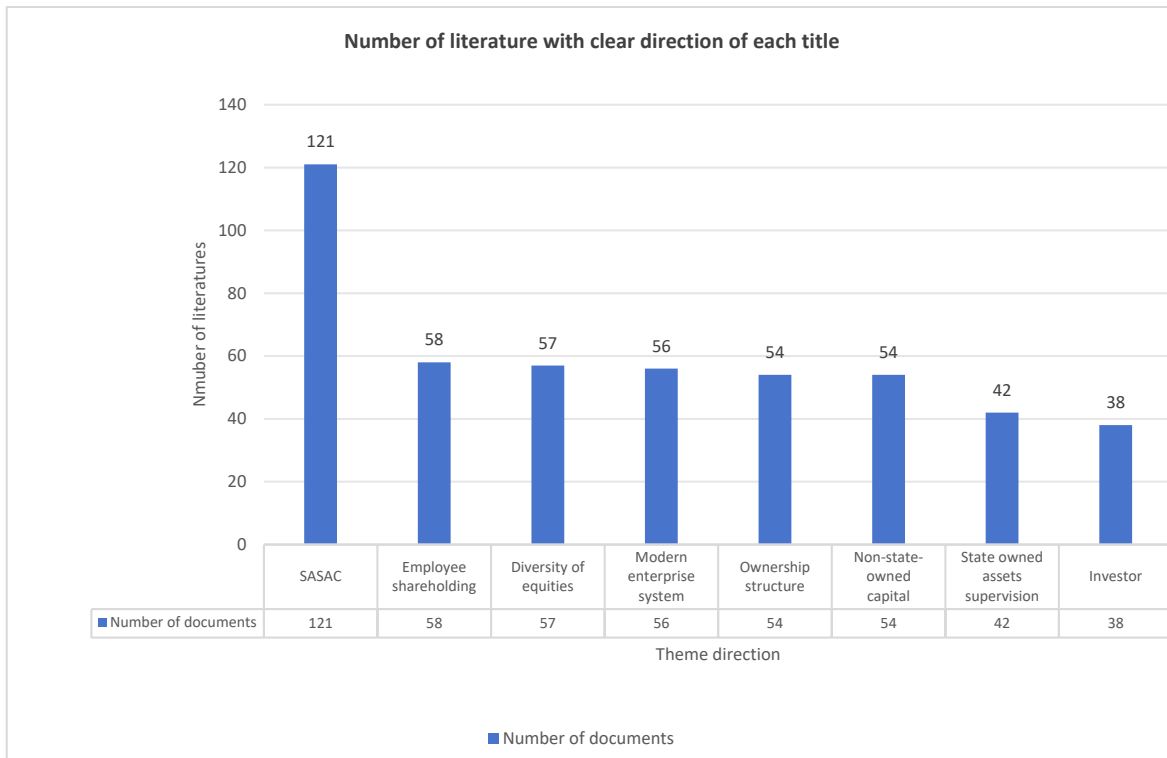


Figure 2: The amount of literature on topics with a clear direction

Figure 2 shows the amount of literature on topics with a clear direction. In the visualization of the literature data, this paper screens out the literature on topics that are closely related to the thesis, such as "state-owned enterprise reform" or "mixed ownership reform", and lists the number of literatures on top topics with clear directions. It is not difficult to see that "SASAC" is the largest

number of topics, and the main responsibility of SASAC is to supervise, manage and allocate state-owned assets to ensure the preservation and appreciation of state-owned assets and effective use. In fact, the number of studies on most of the later topics is not very different, basically maintaining between 40-60 papers. Among them, the most frequent one is undoubtedly "equity". Keywords such as "employee ownership", "equity diversification" and "equity structure" are all researches on "equity". It is not difficult to see that the change of ownership structure will be the main direction of the mixed ownership reform of state-owned enterprises, and the rest of the enterprise system, asset supervision and involving investors are also included in the scope of reform to a certain extent.

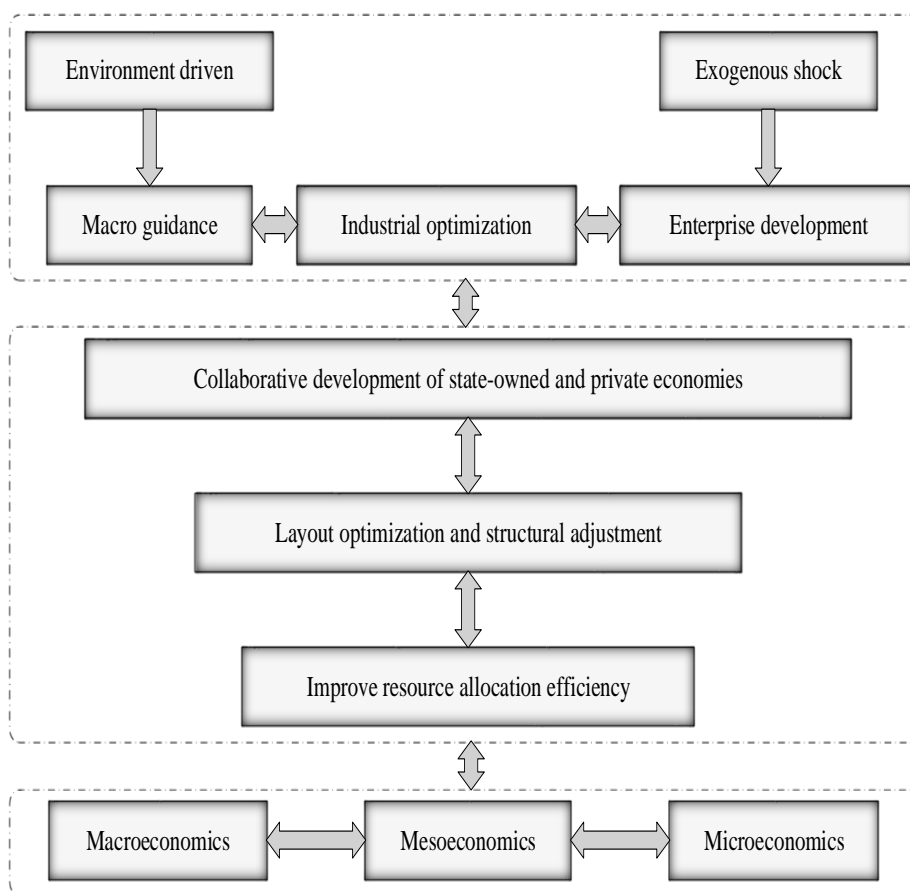


Figure 3: The relationship between mixed ownership reform and economic development

In his research, He Y conducted a series of studies on the development of state-owned enterprises during the 14th Five-Year Plan period, in which he stated the logical relationship between the state-owned enterprises' desire to carry out mixed ownership reform and the high-quality development of national economy [12]. In his view, the high-quality development of the national economy cannot be achieved without a series of interrelated factors, the first of which is the external factors led by environmental drive and exogenous impact. In the current globalization, changes in the global market environment will inevitably affect the national economy to a certain extent, while exogenous impact refers to some unexpected events, which may include market changes, policy changes or even some cases affecting public security. In addition to external factors, it also includes internal factors, that is, the macro-guidance of policies for enterprises, the country's industrial optimization and industrial upgrading, and the development of individual enterprises, which jointly determine the development of the national economy. The mixed ownership reform he

proposed also includes some contents, such as promoting the coordinated development of the state-owned economy and the private economy, accelerating the optimization and structural adjustment of the state-owned economy, and improving the efficiency of state-owned enterprises' resource accessories. Under the coordination and mutual influence of the mixed ownership reform and economic development, the high-quality development of the national economy can be finally promoted, and the high-quality development must be comprehensive, that is, including the macro-level, the medium level and the observer level of economic development (Figure 3).

4. Results and Discussions

4.1 Preventing Excessive Dilution of State-Owned Holdings

Jiang X H proposed that the mixed-ownership economic reform of state-owned enterprises should be carried out through the equity balance mechanism [13]. In his view, the reform of state-owned enterprises should not be blind, and in the last century, a series of Eastern European countries represented by the Russian Federation as an example, the "shock therapy" of total privatization caused a large number of state-owned assets loss, thus hitting the development of the national economy. It is obvious that mixed ownership reform must find a balance between public and private ownership, enhance the economic vitality of state-owned enterprises, and prevent the loss of state-owned assets. The way of equity checks and balances is to improve the problem of "one share dominance", that is, the proportion of state-owned holdings is too large, and on the premise of not completely diluting state-owned holdings, private capital or even foreign capital is introduced to give full play to the market initiative.

4.2 Employee Share Attempt

Pan S W also proposed to carry out mixed ownership reform of state-owned enterprises by adjusting equity control [14]. He believes that a more abundant holding mode can mobilize the production, operation efficiency and vitality of state-owned enterprises, and proposes that in some enterprises, private holding can even develop employee shares, so as to mobilize the enthusiasm of employees and strengthen the internal production efficiency of enterprises. In order to verify this point, this paper selects the historical data of two state-owned enterprises as the comparison object, in which the state-owned enterprise that has gradually completed the reform and transformation of mixed ownership is set as enterprise A, and the other state-owned enterprise that has not started the reform for the time being is set as enterprise B, and the economic scale gap between the two enterprises is not large.

The comparative results of sales changes of the two state-owned enterprises are shown in Figure 4. It can be seen that the annual sales of these two state-owned enterprises with a small gap in scale are very close at the beginning of the statistics. Until 2014, enterprise A began to develop rapidly, and its sales growth rate began to gradually increase, which was reflected in sales, that is, with the promotion of time, it gradually led enterprise B by a large margin. In the 10 years of statistics, the sales of enterprise A rose from 303 million yuan to 641 million yuan, while the sales of enterprise B rose from 326 million yuan to 486 million yuan, with a significant growth gap.

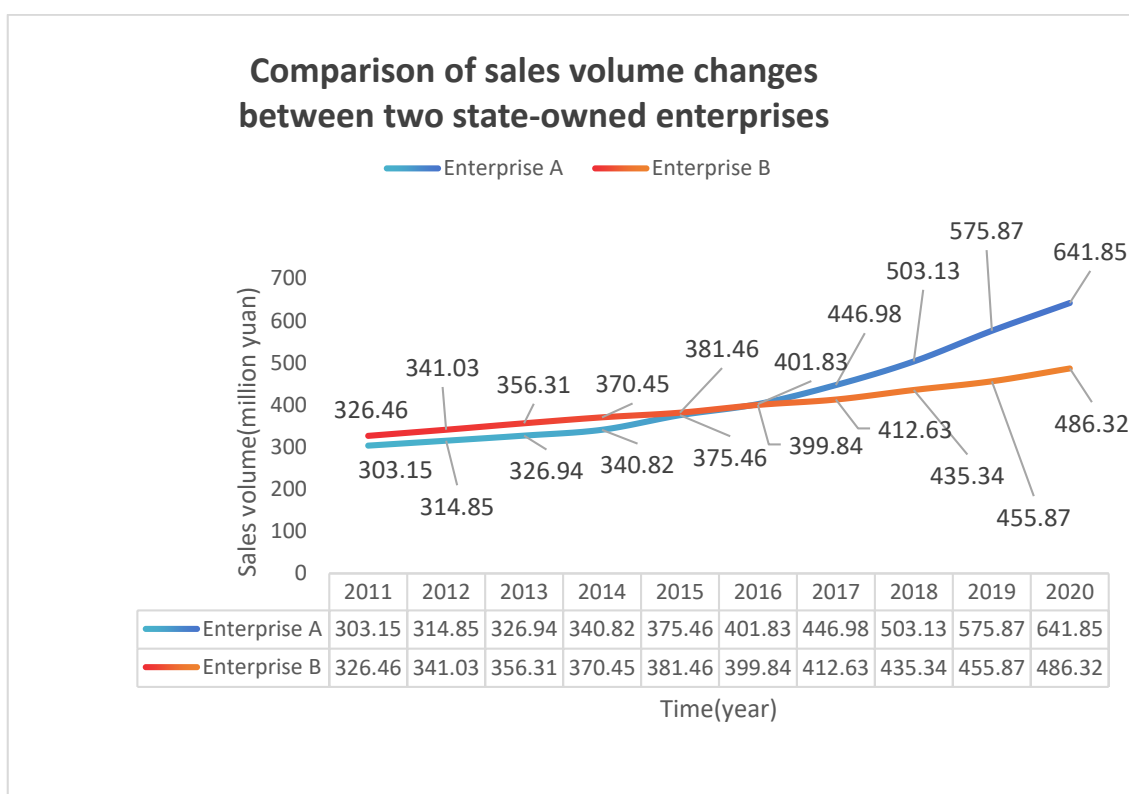


Figure 4: Comparison of sales changes of two state-owned enterprises

5. Conclusion

It is obvious that state-owned enterprises are facing urgent problems of reform at present. In order to avoid many problems caused by total privatization, mixed ownership is undoubtedly a more correct choice. Therefore, the idea of this paper will also start with the direction of mixed private ownership reform, find out its main development direction, analyze it based on Internet data, and finally reflect the impact of mixed ownership reform on state-owned enterprises through the comparison of sales of two state-owned enterprises. However, this paper still has some shortcomings, that is, it only chooses the "equity" angle for analysis, and does not study other reform tools, which is slightly thin. While in general, the mixed ownership reform, which combines both public and private ownership, as the current reform direction of state-owned enterprises, is bound to inject new vitality into state-owned enterprises, and still retain the characteristics of bearing social public responsibilities.

Acknowledgements

This paper is a phased research result of the Humanities and Social Sciences research project of the Ministry of Education, PRC, "Research on the blocking points and Solution Paths of Mixed Ownership Reform of Competitive State-owned Enterprises from the perspective of high-quality Development" (21YJA790051).

References

- [1] Stone R W, Wang Y, Yu S. Chinese power and the state-owned enterprise. *International Organization*, 2022, 76(1): 229-250
- [2] Szarzec K, Totleben B, Piątek D. How do politicians capture a state? Evidence from state-owned enterprises. *East*

European Politics and Societies, 2022, 36(1): 141-172

[3] Ilham R N, Arliansyah A, Juanda R, et al. *Application Of Good Corporate Governance Principles In Improving Benefits Of State-Owned Enterprises (An Emperical Evidence From Indonesian Stock Exchange At Moment Of Covid-19)*. *International Journal of Economic, Business, Accounting, Agriculture Management and Sharia Administration (IJEBAAS)*, 2022, 2(5): 761-772

[4] Zahid R M A, Saleem A, Maqsood U S. *ESG performance, capital financing decisions, and audit quality: empirical evidence from Chinese state-owned enterprises*. *Environmental Science and Pollution Research*, 2023, 30(15): 44086-44099

[5] Li B, Xu L, McIver R P, et al. *Mixed-ownership reform and private firms' corporate social responsibility practices: Evidence from China*. *Business & Society*, 2022, 61(2): 389-418

[6] Su Z H, Jia H N, Yang D H. *Has the reform of mixed ownership reduced the cost of debt and capital for state-owned enterprises?* *Investment research*, 2023, 42(8):30-52

[7] Wu S N, Yang L L, Tang X D. *The Reform of Mixed Ownership of Enterprises and the Chinese Way of Poverty Alleviation and Poverty Alleviation: From the Perspective of State Owned Capital Participating in Private Enterprises*. *Financial Research*, 2023, 49(8):34-48

[8] Huang X S, Ma X X. *Can mixed ownership reform improve the digitalization level of state-owned enterprises?* *Research and Development Management*, 2023, 35(5):16-28

[9] Zeng Z, Tang S. *The Economic Stabilizing Role of State Owned Enterprises under the COVID-19 Epidemic: From the Perspective of Supply Chain Support*. *Economic research*, 2023, 58(3):78-96

[10] Bai H R, Song Z N, Liang S M, Zhang P, Zhang G L. *Imagery Perception Analysis and Comprehensive Attraction Evaluation of Tourism Destinations Based on Internet Text Data: Taking Nanjing City as Example*. *Areal Research And Development*, 2023, 42(4):89-94

[11] Zong S Y, Dai Z B. *Research on the Impact of Data Security Policy on the Innovation of Internet Enterprises*. *Operations Research and Fuzziology*, 2023, 13(6):6257-6276

[12] He Y, Yang L. *Mixed Ownership Reform of State-Owned Enterprises since Reform and Opening-up: Course, Effect and Prospect*. *Management World*, 2021, 37(7):44-60

[13] Jiang X H. *Research on Equity Restriction Mechanism of Mixed-Ownership Reform of State-Owned Enterprises: A Double Case Analysis Based on Eastern Air Logistics and Yanchang Shell*. *Contemporary Finance & Economics*, 2023, 456(11):87-99

[14] Pan S W, Liu B R. *Correctly Handle the Relationship between Mixed-Ownership Reform to SOEs and the Control Power of State-Owned Capital*. *Social Sciences in Shenzhen*, 2023, 6(3):60-68