

Research on the Influence of Investment and Trade System on Wuhan Manufacturing Innovation Mode in the Post Epidemic Era

Quan Tao^{1, a}

¹Business School, Jiangnan University, Wuhan, China.

^a 350762956@qq.com

Abstract. In today's fierce competition in international trade, whether a country's foreign trade system is sound and perfect has an important and far-reaching impact on the regional manufacturing innovation mode and the development of manufacturing industry. This paper combs the domestic and foreign literatures, analyzes the academic significance and practical value of the research, and puts forward the possible social benefits, which provides a reference for the development of Wuhan manufacturing innovation mode.

Keywords: Post Epidemic Era; Investment and Trade System; Manufacturing Innovation Mode.

1. Research Status and Literature Review at Home and Abroad

In the post epidemic era, Wuhan, as a heroic city, is also an important region for the development of manufacturing industry. In particular, with the successful convening of the world military games and the acceleration of the development of foreign trade, it has created a good internal and external environment for the development of regional manufacturing industry. The development of foreign trade in Wuhan will also usher in a new historical opportunity period. Domestic and foreign researches have been carried out on the field of the impact of trade system environment on the development of manufacturing innovation mode [1]. The impact of foreign trade system on the entrepreneurial mode and performance of manufacturing industry is mainly reflected in two aspects: on the one hand, trade system innovation is also a productivity; On the other hand, an effective trade system can reduce the transaction cost of technological progress and transformation of technological achievements in manufacturing industry [2]. Pug and Venables (2015) believe that the interaction of the market structure, transportation cost and industrial input-output structure of monopoly competition determines the agglomeration of all companies in a certain industry in a certain region. Klimenko (2016) believes that the high price of non-tradable goods, rising land price, environmental pollution and other crowding costs in the agglomeration area will cause the centrifugal force of industrial diffusion. Pug and Venables believe that which industry in the industrial cluster takes the lead in the transfer is determined by the product input-output structure and the forward and backward correlation degree of the industry [3]. In the field of open innovation mode of manufacturing industry, Mildred a. hastbacka (2012) believes that the practice mode of open innovation of manufacturing industry includes four parts: strategy, resources, process and organization, which together build a pyramid model; Chesbrough (2013) believes that the open innovation mode is to commercialize the internal and external paths; Gassmann (2016) believes that different innovation models play an important role in promoting industrial innovation; Liehtenthaler (2018) adopted a questionnaire survey. The main respondents were 154 large and medium-sized European enterprises, and analyzed the open innovation of enterprises from a systematic perspective; Sungjoo (2019) and others took Korean small and medium-sized enterprises as research objects, and found that enterprise networks can effectively promote open innovation of small and medium-sized enterprises. Compared with large-scale enterprises, open innovation mainly promotes R & D, small and medium-sized enterprises pay more attention to the commercialization of open innovation; Liehtenthaler & Ernst (2020) believes that the trade system has an important impact on the open innovation mode of manufacturing enterprises

of different scales. In order to facilitate the search for innovation, we should choose the open innovation mode [4].

In terms of domestic research status, in terms of the design of trade system indicators and its impact on the innovation mode of manufacturing industry, Jin Yuguo (2015) used three indicators to measure the regional macro institutional environment: the property right system, the degree of marketization and the degree of opening to the outside world. Through the regression analysis of institutional variables and GDP value, it is concluded that the four aspects of the selected institutional variables have a very significant positive correlation with economic growth. In order to meet the needs of Chinese economic construction practice, many Chinese scholars have formed a relatively complete manufacturing industry transfer innovation model by learning and learning from foreign theories and conducting theoretical research. Relevant scholars have also conducted some research on the open innovation of manufacturing industry and its innovation mode [5]. Chen Yufen and Chen Jin (2013) believe that the open innovation mode is also the innovation realized through the integration of internal and external innovation resources. In particular, the enterprise's own technology can fully realize the purpose of commercialization through external channels; (2016) analyzed the relationship between the cultural support, market orientation and innovation performance of enterprises' organizational open innovation. In terms of the impact of the trade system on the open innovation mode of the manufacturing industry, sun Hai et al. (2018) believe that the trade system is closely related to the open innovation of the manufacturing industry, and the institutional factors can promote the open innovation and transform the external technology into the capacity of the manufacturing enterprises through independent innovation; Based on the empirical research of Industrial Enterprises above designated scale from 2009 to 2017, Li Danqing et al. (2020) analyzed the impact of institutional factors on the innovation efficiency of enterprises, and believed that the trade system promoted the construction and improvement of the open entrepreneurship mode of manufacturing industry; Han Zenglin et al. (2021) analyzed that the growth performance of an open economy has a complex endogenous relationship with the quality of a country's system. The system and labor, scale effect, technology and other endogenous and exogenous factors comprehensively affect the development of trade, and pointed out that the system quality has become the source of new comparative advantages, not only affecting the actual trade flow, but also determining the trade structure and trade mode, It has an important impact on the innovation mode of manufacturing industry [6].

2. Analysis of the Relevant Significance of this Paper

2.1 Academic Significance of this Paper

Therefore, under the background of the post epidemic era, this topic focuses on the impact of investment and trade system on the innovation mode of Wuhan's manufacturing industry and the integration issues, so as to promote the integrated development of multi-disciplinary knowledge such as international trade, new institutional economics and industrial economics [7]. In the aspect of theoretical research, this topic conducts research within the framework of new institutional economics, trade and investment theory and manufacturing innovation mode theory, so as to better integrate the theory of institutional economics and trade and investment theory. The research on how to improve the trade system environment, investment system reform and manufacturing innovation mode enriches the theoretical basis of trade system reform and foreign capital investment mechanism innovation in the field of international trade theory and policy [8].

Another unique academic value of this study is that it further enriches the connotation of the new institutional economics theory under the new economic normal, integrates the trade system reform and the manufacturing innovation mode theory into the new institutional innovation system in the new institutional economics theory, It further highlights the important significance and academic value of the theoretical integration of new institutional economics and manufacturing innovation mode.

2.2 Practical Significance of this Paper

This study has unique application value and practical significance. With the arrival of the post epidemic era, Wuhan, as an important city in Central China, is attracting more and more foreign capital [9]. The transfer of manufacturing industry and transnational investment is an irresistible trend of world economic development. For Wuhan, it is undoubtedly a good opportunity to absorb external industries, capital and technology, and plays an important positive role in promoting Wuhan's economic development. Facing the current situation, how to coordinate the construction of the trade system and the investment in the manufacturing industry in the post epidemic era is an important topic.

Therefore, studying the topics in this field can help Wuhan realize the recovery and rapid development of the manufacturing industry in the post epidemic era, and advance towards the construction of a national central city and an international metropolis. It has very important practical significance and unique application value for promoting the optimization of Wuhan's foreign trade system environment and the rapid development of the manufacturing industry economy [10].

3. Social Benefits Obtained in this Paper

Through the research of this paper, it is expected to achieve greater social benefits and provide policy reference for the government and relevant functional departments, so as to optimize the construction of investment promotion system, strive to formulate new trade rules on the world trade stage, and obtain more foreign exchange income. In addition, it can better attract foreign international capital to enter the mainland market of China, and promote the industrial structure upgrading and economic development of Wuhan and other central and western regions. With the rapid development of China's trade economy and the increasing prosperity of attracting FDI, the relevant systems and trade system construction of China's inland market are constantly improving. The relatively good institutional environment and investment prospects attract foreign capital and related industries to enter China's market, which makes China's economic scale grow continuously, rapidly and stably, and become a hot spot for international external capital investment. Under the environment of absorbing foreign investment and meeting the transfer of external industries, it is very important for the economic development of Wuhan to study the construction of foreign investment and trade system and the innovation mode of manufacturing industry in Wuhan. This will help Wuhan to actively attract foreign investment, further expand foreign economic exchanges, optimize the business system environment, attract businessmen to invest and start businesses in Wuhan to a greater extent, guide the reasonable flow and transfer of international and external industries to Wuhan, introduce advanced technology and management experience, and then participate in international competition, greatly improve the overall business competitiveness of Wuhan, and also help improve the people's living standards. Therefore, It has important economic value and good social benefits.

4. Research Summary

With the rapid development of Chinese economy and the increasing prosperity of attracting FDI, China's relevant systems and trade system construction are constantly improving. The relatively good investment system and investment prospects attract global capital and related industries to enter China's mainland market, which makes the economic scale of Wuhan and other inland cities grow continuously, rapidly and stably, and become an important area for foreign investment. Wuhan will have great potential in the environment of attracting investment, attracting foreign investment and welcoming external industrial transfer! The study of foreign investment and trade system construction in Wuhan can create a good institutional environment and conditions for Wuhan to absorb foreign commercial capital, which is of great value to further expand foreign

economic exchanges, optimize system construction, attract foreign capital direct investment to a greater extent, guide the reasonable flow and transfer of manufacturing industry to Wuhan, and promote the commercial and economic prosperity of Wuhan. We actively carry out various research, pay attention to the application of scientific research results to social reality, and actively serve the society. This paper also has positive significance for Wuhan to accelerate the optimization of investment and trade system environment and promote the development of manufacturing industry. We hope to make a certain contribution to the economic development of Wuhan.

Acknowledgement

This paper is supported by the 2021 school level scientific research project of Jiangnan University (subject No.: 2021yb093).

This paper is supported by the Discipline Group of "Urban Circle Economy and Industrial Integration Management" of Jiangnan University.

Reference

- [1] Andrew Sumner, Foreign Direct Investment in Developing Countries: have we reached a policy ‘tipping point’? [J] Third World Quarterly, 2008, 29: 239-240.
- [2] Ashoka Mody and Shoko Negishi, The Role of Cross-Border Mergers and Acquisitions in Asian Restructuring, Working Paper of World Bank, 2001 (3) :23-34.
- [3] Busse, M . , and J . L . Gruinard, Foreign Direct Investment, Regulations and Growth, World Bank Policy Research Working Paper, No . 3882, 2006 .
- [4] Hui Huang, The Regulation of Foreign Investment in Post-WTO China:A Political Economy Analysis [J], Clumbia Journal of Asian Law,2009(6): 112-135.
- [5] Jing Zhanga and Xiaolan Fu, FDI and environmental regulations in China [J], Journal of the Asia Pacific Economy, 2008 (13) : 332-353.
- [6] L Huang, X Liu, L Xu, Regional Innovation and Spillover Effects of Foreign Direct Investment in China [J], A Threshold Approach Regional Studies, 2012 (2) : 11-18.
- [7] LiPuma J.A., Newbert, S.L., Doh, J.P., The effect of institutional quality on firm export performance in emerging economies: a contingency model of firm age and size [J], Small Business Economics. 2011 (3) :142-151.
- [8] GONZALEZ RIVERA G, HELFAND S M . The extent, pattern, and degree of market integration: a multivariate approach for the Brazilian Rice Market [J] .American Journal of Agricultural Economics, 2016, 83: 576-592 .
- [9] Ann Harrison, Trade, Foreign Investment, and Industrial Policy for Developing Countries [J], NBER Working Paper 15261,2017 (6) : 45-52.
- [10] Xianyong Zheng and Hanmin Huang, The Game Analysis of the Reasons for Chinese Defeat in Iron Ore Negotiation-Based on the Bargain Model, International Conference on Business, Management Information,2020 (6) : 19-27.