Literature Review of The Impact of China-ASEAN Free Trade Area on Industrial Structure Based on Citespace -- Concurrently Discussing the Impact of RCEP on China's Industrial Structure Upgrading

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Abstract: The China-ASEAN Free Trade Area (FTA), as the first FTA constructed in China, is an important initiative for China's industries to participate in the global division of labour and cooperation. This paper adopts the bibliometric analysis software ciespace from the technical level and summarizes the existing impact of China-ASEAN free trade agreement on the upgrading of China's industrial structure and its path, and prospects the opportunities and challenges brought by RCEP to China's industrial structure. Specifically, based on the CiteSpace metrology analysis softwarebased on Citespace analysis, the paper searches the literature on China-ASEAN FTA from two major databases, CNKI and Web of since, to sort out the research trends on China-ASEAN FTA and summarise the industrial clustering and industrial transfer effects of China-ASEAN FTA. Secondly, the path of the impact of the China-ASEAN FTA on the industrial structure is summarised, and the general view is that the trade effect as well as the tariff effect of the FTA will promote the optimisation of the industrial structure. Finally, we analyse how the upgraded FTA agreement RCEP will bring opportunities and challenges for China's industrial structure upgrading.

Keywords: China-ASEAN Free Trade Area, Industrial Structure, Citespace, RCEP.

1 INTRODUCTION

The 17th and 18th National Congresses of the Party clearly pointed out the need to accelerate the implementation of the free trade zone strategy, and the report of the 20th National Congress of the Party once again reiterated the importance of the free trade zone to China's economic development. The China-ASEAN Free Trade Area is the earliest, fastest progressing and most effective FTA in China^[1]. According to the General Administration of Customs of China, the total import and export between China and ASEAN was only US\$40 billion in 2003, while this figure jumped to US\$878.2 billion in 2021, with an average annual growth rate of 37.3%. Even in the face of repeated shocks such as the financial crisis and public health incidents, export trade between the two sides has continued to grow steadily and even against the trend, showing strong vitality and dynamism^[2]. Industry is the mainstay of economic

development, and the upgrading and transformation of industrial structure and opening up to the outside world are the core elements of building an FTA^[3]. The result of the counter-trend growth of trade between the two sides cannot be separated from the support of industrial structure. Therefore, the relationship between the China-ASEAN FTA and China's industrial structure has been an important issue of concern to scholars. By selecting relevant representative research literature, this paper condenses the following three aspects: firstly, to summarise the general research trend of China-ASEAN FTA and analyse its impact on China's industrial structure; secondly, the path analysis of the impact of China-ASEAN FTA on China's industrial structure; thirdly, the opportunities and challenges of China's industrial structure under RCEP Opportunities and Challenges of Upgrading.

2 CHINA-ASEAN FREE TRADE AREA RESEARCH TRENDS AND INDUSTRIAL EFFECTS

2.1 Analysis of Research Hotspots in the China-ASEAN Free Trade Area

The China-ASEAN trade area is the first negotiated trade area in China, and its wide coverage and far-reaching influence have made it a focus and hot spot for academic research for a long time.

In this paper, through a search of the CNKI database, we found a total of 1677 papers related to the China-ASEAN Free Trade Area, including 210 core journals and 172 degree theses. After eliminating the literature unrelated to trade or industry, 225 pieces of literature remained. Research was still in its infancy at the early stage of the construction of the China-ASEAN FTA, and the research fever reached its peak in 2013-2017, and the research fever regarding the China-ASEAN FTA has remained enduring in recent years. From the keyword mapping at home and abroad (as shown in Figure 1), among the 225 sample documents in the CNKI database, industrial structure, industrial cooperation and industrial upgrading recurred more frequently and became the focus of scholars' attention. From Figure 2, it is easy to see that the trend of foreign research on FTAs is more empirical, generally based on the gravity model to analyse trade creation and trade transfer effects.

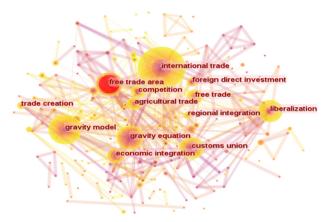
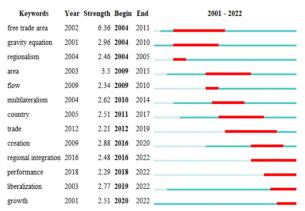


Figure1 Key word map of the free trade zone

From the analysis of keyword emergence graphs at home and abroad (as shown in Figure 2), there are fewer studies on the industrial structure of the China-ASEAN FTA, and studies about industrial upgrading have only been paid attention to in recent years. Research trends in previous years abroad have concentrated on the gravitational model of the FTA, and studies on liberalisation and economic growth have only been given attention by scholars in recent years.



Top 13 Keywords with the Strongest Citation Bursts

2.2 The Industrial Effects of the FTA

2.2.1 Industrial Transfer Effects

Japanese economist Akamatsu was the first to conduct a systematic study on the effects of industrial transfer. Based on him, Kiyoshi Kojima proposed the theory of marginal industrial expansion, emphasising that industrial transfer should transfer industries in which the country does not have a comparative advantage to other countries.

Taking the China-ASEAN FTA as an example, Qin (2005) divided the industrial development levels of member countries in the FTA into four gradations, pointing out that countries with higher industrial levels would transfer their inferior industries to countries with lower levels, so as to optimise their industrial layout^[4]. After the establishment of the China-ASEAN FTA, tariff barriers have been removed and the exchange of goods and the flow of factors within the region has become freer, which has had an accelerating effect on the transfer of industries within the region^[5].

2.2.2 Industrial Agglomeration Effect

The process of China-ASEAN FTA leading to the transfer of industries is also accompanied by industrial agglomeration effects.

Wang Zhanbo et al. (2013) point out that the construction of the China-ASEAN FTA will result in the transfer of industries from countries within the region to countries outside the region, resulting in the phenomenon of industrial agglomeration and leading to uneven industrial development^[6]. Long, Yunan (2013), also based on the exploration of industrial

Figure 2 Comparative analysis of domestic and international research trends on FTAs

agglomeration paths, reaches the opposite conclusion. He finds that the China-ASEAN FTA not only highlights the agglomeration effect, but also moderates the imbalance in industrial agglomeration^[7]. Scholars generally agree that the China-ASEAN FTA brings about industrial agglomeration, but further evidence is needed to determine whether industrial agglomeration causes industrial imbalances.

3 MECHANISMS OF THE IMPACT OF THE CHINA-ASEAN FTA ON CHINA'S INDUSTRIAL STRUCTURE

3.1 Pathway Exploration

3.1.1 Trade Effects

Through literature analysis found that the keyword clustering as shown in the figure (as shown in Figure 3), get 323 connection node, found in the literature about China-asean free trade agreement industry structure, generally trade effect as the intermediary mechanism, think free trade area will stimulate the import and export goods and trade structure adjustment, ultimately affect the industrial structure.

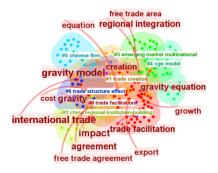


Figure 3 Key word clustering graph on FTAs

Cui Qingbo et al. (2017) found that the establishment of the China-ASEAN FTA will promote trade liberalization between China and ASEAN countries and is conducive to China's international industrial upgrading and transformation^[8]. Xiang Yan (2022) measured the trade creation and trade transfer effects of the China-ASEAN FTA based on a gravity model and found that both sides lacked comparative advantages in capital and technology-intensive industries and that such industries were difficult to be replaced^[9].

3.1.2 Tariff Effects

Tariff reduction is a central part of the FTA negotiation and construction process, so scholars at home and abroad inevitably take the economic effects of tariffs as a starting point when studying the construction of FTAs, and delve into the chain reaction under the zero-tariff conditions in FTAs.

Cao, Liang et al. (2022) point out that tariff reductions allow enterprises to reduce the cost of importing intermediate goods from ASEAN, reduce the technical complexity of their exports,

and thus promote high-quality agricultural development^[10]. Kwanyoung et al. (2018) dissect the effect of tariff concessions in the China-ASEAN FTA based on the theory of customs union, and the study shows that tariff concessions can promote trade exchanges among member countries^[11]. Yu Miaojie and Wang Xiaotong (2021) show that tariff concessions in the China-ASEAN FTA lead to the entry of efficient firms instead of inefficient ones, which in turn leads to an increase in the overall productivity of the industry^[12]. Both the increase in production efficiency and the increase in trade volume are important factors affecting the industry, however, scholars have only skimmed over the research on industrial structure while studying the tariff effects of the FTA, failing to place the various effects on the upgrading of industrial structure and ignoring the impact of the various effects on industrial structure.

3.2 Empirical Study

In terms of ex-ante forecasting, global trade analysis model (GTPA model) is widely used to evaluate the effect of international trade policy on economy. This model evolved from general equilibrium model (CGE model) and has been widely used in the of trade liberalization and regional economic integration. Post-hoc assessment uses the trade gravity model to evaluate the effect of the China-ASEAN Free Trade Area^[13].

Roberts (2004) used the macroscopic gravity model to analyze the trade effect of China-ASEAN Free Trade Area, The establishment of the FTA led to a significant increase in trade flows between China and ASEAN^[14]. In addition to the above methods, some scholars have also used other methods to measure the chain reaction brought about by the FTA. Liang Shuanglu et al. (2020) compared the China-ASEAN FTA with the European and US FTAs and found that the two FTAs have different impact paths on industrial structure, with the China-ASEAN FTA mainly optimising the investment structure to achieve industrial upgrading^[15].

4 THE IMPACT OF RCEP ON OUR INDUSTRIAL STRUCTURE

4.1 **Opportunities for China's industrial Structure Arising from RCEP**

At a time when countries are facing the double test of the new crown epidemic and the global economic downturn, RCEP will bring significant trade effects and accelerate the restructuring of the regional industrial chain layout.

Wang Jianfeng et al. (2022) found that RCEP not only improves export trade efficiency, but also accelerates structural reforms on the supply and demand sides, adding momentum to industrial chain collaboration^[16]. The signing of RCEP will expand the trade creation effect, optimise resource allocation and promote deeper integration of industrial and value chains in the region ^[17].

In addition, RCEP can reconfigure the industrial chain and accelerate the reconfiguration of the regional industrial chain layout. Yali Wang et al. (2021) explain that RCEP provides a supply-side basis for intra-regional value chain climbing, with RCEP member countries gaining comparative advantage at low cost and becoming global production network centres^[18]. The implementation of RCEP brings opportunities to Chinese industries, and

seizing this opportunity can enhance the effective competitiveness of industries and strengthen their ability to withstand risks.

4.2 RCEP Challenges to Our Industrial Structure

While there is no doubt that the entry into force of the RCEP brings opportunities for restructuring industrial chains, some scholars are concerned about the risks and challenges that the RCEP brings to the industrial structure.

RCEP affects commodity import and export trade, which in turn changes the trade structure and puts invisible pressure on industrial adjustment. Yuan Minglan and Zhang Xiaoling (2021) argue that the similarity in export structures between the two sides has intensified competition between manufacturing and agriculture, putting pressure on industrial chain reconfiguration^{[1]9}. Of course, there are also scholars who see the potential threats of the RCEP from other perspectives. The most direct manifestation of this game is the high wall of technical barriers that member countries have erected against each other, which puts technology in a jam and inhibits the development of high-tech industries. The tendency of capital to profit will transfer the low-end domestic manufacturing industry to Southeast Asian countries with lower labour costs, which means that China's industry will face the pressure of industrial hollowing out.

5 SUMMARY

From a theoretical perspective, the research system on the trade effect, tariff effect and industrial effect of the China-ASEAN FTA has tended to mature at home and abroad, but the current studies on the industrial structure of the China-ASEAN FTA are all based on the trade effect and tariff effect as the mediating mechanism, and we have yet to see a comprehensive study on the path of industrial upgrading in the China-ASEAN FTA. In terms of empirical research, studies on the trade effects of the FTA are mainly based on global trade analysis models and gravity models, which are widely adopted by academics, but lack direct measurement of industrial structure. Therefore, there is still room for research on the path of China-ASEAN FTA on the upgrading of industrial structure. After the introduction of the upgraded FTA RCEP, scholars have focused on the opportunities and challenges of the RCEP in building the industrial division of labour system and reconstructing the industrial chain, but have also neglected the exploration of the path of upgrading the industrial structure. After the launch of the upgraded China-ASEAN Free Trade Zone, namely RCEP, scholars have paid close attention to the opportunities and challenges of RCEP in building the industrial division of labor system and reconstructing the industrial chain, but also ignored the exploration of the path of industrial structure upgrading. Therefore, in the context of the redistribution of the global industrial chain, studying how to use RCEP to promote the upgrading of China's industrial structure will become a research hotspot of theoretical and practical significance.

REFERENCES

[1] Cao L., Zao Y., Tan Z., Yu L. F.. Study on the impact of China-ASEAN Free Trade Area intermediate goods tariff concessions on China's high-quality agricultural development[J].

Macroeconomic Research, 2022(01):74-90.

[2] Chen Xiulian. The impact of China-ASEAN Free Trade Area on industrial transfer[J]. Open Guide, 2006,(05):92-93.

[3] China-ASEAN Free Trade Area is the earliest FTA established in China [EB/OL]. Central People's Government of the People's Republic of China Website, http://www.gov.cn/jrzg/2009-04/15/content_1286745.htm.

[4] Cui Qingbo, Liang Shuanglu, Liu Yan. The impact of China-ASEAN free trade area on the international industrial division of labor structure of member countries[J]. Guangxi Social Science,2017,(09):60-64.

[5] Kwanyoung Lee, R Karina Gallardo, Miguel Giacinti. The Indian Demand for Imported Fresh Apples: Effects of Tariff Reductions [J]. Agricultural and Applied Economics. 2018, 52(1).

[6] Liang, Shuanglu, Liu, Linlong, Cui, Qingbo. Can the establishment of free trade zone promote the transformation and upgrading of regional industrial structure? --A study of synthetic control method based on international data[J]. Contemporary Economic Management, 2020(2):1-15.

[7] Long, Yunan. A study on industrial agglomeration and equilibrium effects based on China-ASEAN Free Trade Area[J]. World Economic Research, 2013,(01):80-86+89.

[8] Qin Xiaoyang. Industrial transfer and the development of China-ASEAN free trade area[J]. Journal of Guangxi University (Philosophy and Social Science Edition), 2005,(04):5-8.

[9] ROBERTSB. A Gravity Study of the Proposed China-ASEAN Free Trade Area [J].

[10] Tinbergen, J. Shaping the World Economy: Suggestions for an International Economic Policy [R]. New York: The Twentieth Century Fund, 1962

[11] Wang Shuhao, Fan Yongchang. Spillover effects of free trade zones on China's distribution industry - an analysis based on the China-ASEAN Free Trade Area[J]. Business and Economic Research,2021,(08):141-144.

[12] Wang Zhanbo, Zhang Bin. A study on the impact of China-ASEAN FTA on industrial agglomeration and development imbalance[J]. World Economic and Political Forum, 2013,(04):111-128.

[13] Wang Jianfeng, Jin Congying. A study on the efficiency and potential of export trade between China and RCEP partner countries based on stochastic frontier gravity model[J]. Business Economics,2023,(01):105-109+116.

[14] Wang Yali, Wang Yan. Dual impact of RCEP on China's high-quality economic development and analysis of countermeasures [J]. Theoretical discussion,2021,(02):87-91.

[15] Xiang Yan, Yang Xi-Ming. Study on the trade effects of China-ASEAN free trade area based on gravity model[J]. Statistical Theory and Practice,2022,(04):17-22.

[16] Yu Miaojie, Wang Xiaotong. China-ASEAN free trade agreement and productivity of Chinese enterprises[J]. Academic Monthly,2021,53(03):50-62.

[17] Yuan M.L., Zhang S.L. Opportunities, challenges and China's strategic choices brought by the signing of RCEP [J]. Price Theory and Practice,2021(01):82-86.

[18] Zhang Xiaotao, Xu Weiyin, Huang Xiang, Zhong Tenglong. The effect of the implementation of China-ASEAN FTA on trade in goods and the path of building a high-level FTA[J]. International Trade, 2021,(06):81-88.

[19] Zhang Tangui. RCEP: characteristics, problems and prospects [J]. International Perspectives, 2021, 13(02):120-135+157-158.