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Original Article

Production Relocation of Multinational Companies from China and Chances for Vietnam

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Abstract: Since the intense US-China trade war and the global outbreak of the Covid-19 pandemic, multinational companies' tendency to diversify production activities and disperse their foreign direct investment (FDI) out of China became more visible. In this context, Vietnam has the opportunity to become a new global manufacturing hub. It remains to be seen whether Vietnam can attract that FDI inflow from multinational companies (MNCs) or not, especially in the context of unpredictable competition between many potential countries such as India, ASEAN countries and China who actively finds ways to retain foreign investors. The objectives of this article are to analyze the trend of relocating production sites of MNCs from China, and its causes, and factors attracting a production relocation wave in Vietnam, thereby giving some implications to increase the difference of Vietnam in this race to attract investment from foreign manufacturers.

Keywords: Production relocation, production strategy, MNCs, China, Vietnam.

1. Introduction

During the past three decades, China has always occupied a unique position as the "world factory" due to its ability to produce low-cost goods with cheap labor, high output and efficiency. However, there has long been a tendency of MNCs to diversify production facilities and move FDI out of China, which reflects the increase in labor costs in China. This trend has been more pronounced since 2018, when the US - China trade war became more intense. Simultaneously the Covid-19 outbreaks also accelerated this process when MNCs considered the security and resilience of the economy more important than production efficiency. MNCs have been applying a "China + 1" strategy to reduce risks - in which, instead of just investing in China, MNCs will diversify production and business activities to other countries - this is an economical and safer option in the long run. Many companies have relocated part of their production lines to Southeast Asian countries or other locations, while continuing to produce in China. As a

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result, a new global manufacturing landscape is beginning to take shape.

In this context, Vietnam has many opportunities to become one of the new global production bases. Vietnam is experiencing a period of rapid growth with relatively low costs of production factors [1]. In addition to the geographical proximity to China, the country has other important advantages in attracting FDI flows from MNCs that plan to move out of China, such as the participation in new generation FTAs and government plans in building the country into a manufacturing hub of Southeast Asia.

However, Vietnam still faces many challenges in attracting scattered FDI flows from China. The construction of new industrial clusters cannot happen quickly. Vietnam has a cheap labour force, but the population size of 100 million is small compared with the 1.3 billion of China. At the same time, the infrastructure system is of poor quality and roads and ports are easily congested. Moreover, at present, there are many countries, such as India, the Philippines and Indonesia, who are competing fiercely with Vietnam in attracting FDI inflows to move out of China. Even the Chinese government is very active in investor engagement.

In this context, this article analyses the trend of production relocation out of China, considering the factors affecting production relocation which will be used to characterize Vietnam as a potential site to attract the wave of production shift from China; and then give some implications for Vietnam.

2. Theoretical Foundation of MNCs' Production Relocation

2.1. Definitions and Drivers of Production Relocation

Production location choice is a critical operational decision of MNCs because it has a significant impact on a firm's performance and long-term profitability [2]. Porter (1986) argued that the competitiveness of a manufacturing firm is affected by the combination of both the firm's intangible assets and the plant's locational characteristics [3]. The factory location also determines the stability and flexibility of the supply chain as it influences the ability to access input materials and distribute products to the consumers [4]. According to research by Porter and Rivkin (2012), many site decisions may be less effective than expected because managers underestimate the current and future hidden costs associated with foreign operation [5].

However, the production location can change over time depending on the company's strategy as well as the dynamics of the competitive landscape and demand structure. According to Bruch et al., (2014), manufacturing location decisions are often associated with relocating production overseas [6].

There are a number of studies providing views on the definition and driving forces behind production site relocation. Borensztein et al. (1988) argue that plant relocation is the process of relocating a large proportion of a firm's assets, which relates to the geographic displacement of investment capital, workforce and technology [7]. The main reason to relocate is to save production costs. Firms aim to take advantage of favourable cost conditions in other locations such as wages, energy prices, government incentives/taxes and other factors. Next is the access to important factors such as raw materials, highly skilled labour, etc. Moreover, a business is motivated to be moved by government policies through various forms of support [8].

2.2. Factors Affecting Production Relocation

Based on a detailed literature review, MacCarthy and Atthirawong (2003) identified 13 main factors in relation to location decisions, including costs, employee characteristics, infrastructure, proximity to suppliers, proximity to market/customers, proximity to parent company facilities, level of competition, quality of life, legal and regulatory frameworks, economic factors, government and political factors, social and cultural factors and characteristics of a particular place [9].

Based on this list, Bruch et al. (2014) conducted in-depth interviews with enterprises and came to conclusions about the 3 most important factors affecting the relocation decision [6]. *First is the cost.* This is a key consideration in many international location decisions and there can be trade-offs between different cost types [9], including fixed costs, transportation costs, wages, energy costs, land costs, construction costs and others. *Second is the proximity to the market and customers*. Relocating to a new location aims to bring production closer to customers and markets, increase responsiveness and shorten delivery times and capture population trends and changes in the consumers' needs. *Third is infrastructure for production and transportation of goods.*

However, the importance of the above factors is changing in the context of global upheaval, especially the Covid-19 pandemic. Currently, it is difficult for managers to start over and simply focus only on efficiency and growth, without regard to risk-related activities [10]. Especially when the pandemic came as a shock in an inherently chaotic context of trade battles, the uplifting of protectionist policies [11] and the increasing demand for more sustainable business models, the relocation of existing production sites is important to minimize risks [12].

According to a study by Mercer, the three most important factors before the Covid-19 outbreak included: i) labour costs; ii) land costs and the burden of regulation; and iii) proximity to the current supply chain [13]. Obviously, cost was the main issue of concern. However, with the outbreak of Covid-19, many companies suffered serious losses due to supply chain disruptions during the pandemic and subsequent social isolation shutdowns [14].Therefore, the main factors that businesses considered when deciding on a production site were *the labour market, the costs, and the ecosystem*. The factor that will have importance in post-Covid-19 global production is *the ecosystem* that provides structure and resilience for each potential plant. Ecosystems include the infrastructure, the business environment, and the potential risks associated with the options available. How this ecosystem provides resilience in the face of shocks like Covid-19 will be paramount [15].

From the above analysis, the paper outlines the main factors that determine current production site selection including *cost*, *labour market, proximity to the market and material resources, and the ecosystem.* These factors will be used to characterize Vietnam to become a potential site to attract the wave of production shift from China.

3. Overview of MNCs' Production Relocation from China and Causes

The trend of relocating production sites of MNCs out of China has been present for a long time, but has become most pronounced since the US imposed a 25% tariff on 818 goods imported from China [16]. According to the Nomura Group, from the beginning of 2018 to August 2019, 56 international enterprises left China to produce in other countries; of these, 26 businesses chose Vietnam, 11 businesses moved to Taiwan, 11 businesses went to Thailand, and 3 businesses chose India [17]. In the first half of 2019, the number of investment and business projects in China decreased by about 30% from the previous year. According to Manabe (2019), Delta Electronics, a manufacturer of power supply equipment from Taiwan, is increasing domestic production and reducing production rates in China [18]. Besides, Samsung Electronics also closed a smartphone factory in Tianjin, China. According to the Nikkei Asian Review, large multinational corporations such as Apple, Nintendo, HP, Dell, etc., have urgently implemented strategies to avoid high tariffs by the US on goods imported from China.

The rapid spread of Covid-19 has strengthened this tendency as it has disrupted the business of many foreign companies in

China which are unable to guarantee on-time production and delivery to their customers. Many businesses have realized that locating the production stage in only one country will make them entirely dependent on that country. Therefore, they seek to reduce their dependence on China [19].

There are many reasons that MNCs relocate or disperse part of their production activities to other countries, instead of depending entirely on China. In this study, we summarize the four main reasons, including passive ones (the decreasing attractiveness of the Chinese market and risk avoidance of MNCs) and proactive reasons (taking advantage of opportunities from new markets and government support). In detail, the motives for leaving China are:

First, to move out of the China market with its decreasing overall attractiveness due to increased production costs. China, a country considered as the world factory, is losing its competitive advantages due to the elimination of investment incentive policies, rising labour costs, lack of human and natural resources, and the stronger Renminbi. Wages in China are increasing at a rate of 25% per year, and many other costs are rising [20]. According to a Kearney (2020) report, China has been relegated from 3rd in 2017 to 7th in 2019 and 8th in 2020 among the world's best FDI locations, which is China's lowest ranking ever [21]. In addition, when the US-China trade tension escalated, high tariffs were imposed by these two countries on each other's imported goods. This caused many difficulties for global import and export activities and led to an increase in production costs and commodity prices. Therefore, many businesses have planned to move their production to other Asian countries such as Vietnam, the Philippines, Bangladesh, and India [22].

Second, to disperse risks from the Chinese market and diversify the production chain through the application of the “China + 1” strategy. Many companies have been relying entirely on factories in China to supply critical goods. So, when adverse events happened like the US-China trade tensions or the Covid-19 pandemic outbreak, the supply chains and their production was disrupted. To avoid risks occurring in the future, companies are forced to change their supply chain and production. MNCs have been looking for opportunities to move part of their investments to other countries while retaining and utilizing the facilities already invested in China. This trend has taken place for a long time, but the outbreak of Covid-19 has made the process faster and more drastic [23].

Third, to actively take advantage of new opportunities from potential markets such as India, Indonesia, Vietnam, the Philippines, etc., While China is losing its cost advantages, other Asian countries, especially Southeast Asia, are becoming more attractive with advantages such as cheap labor costs, a large consumer market and government policies to encourage and attract FDI. The trade war between the two major economies has made MNCs want to consider moving part of their investment to these potential countries. Reports by organizations and consulting firms both emphasize that Southeast Asia nations are benefiting the most from this trade war [11]. In particular, Covid-19 makes the companies consider the security and resilience of the economy more important than production efficiency.

Fourth, to take advantage of government policies of some countries such as the US, Japan... These countries have many policies to encourage investment withdrawal and a supply chain shift out of China. In April 2020, Japan spent US$ 2.2 billion from an economic bailout package of nearly US$ 1,000 billion to finance local businesses to bring production from China back to Japan or to other Southeast Asia countries. In addition, the government has launched a JPY 23.5 billion (US$ 220 million) subsidy program to help businesses diversify their supply chains to ASEAN countries. The US government also seeks to encourage companies in the United States and other countries to relocate their production bases to the United States to diversify their supply chains and minimize dependence on the supply chain. On May 14, 2020, the US officially passed a decree to move production out of China [24].

4. Factors Attracting the Production Relocation Wave in Vietnam

Facing the above trends, Vietnam has the opportunity to "shine" - to become a new global manufacturing base. In the first five months of 2020, a number of corporations have planned to move their investments to Vietnam. Specifically, according to Nikkei, Google plans to produce low-cost smartphones (Pixel 4a) in Vietnam, while Microsoft plans to produce notebooks and desktop computers in the second quarter of 2020. Apple will produce headphones (AirPods) in Vietnam instead of China. Nintendo has also transferred a part of the Switch Lite game console production to Vietnam, etc. However, the transition will not be immediate because MNCs cannot instantly move an established supply chain, even if given incentives by the home country government. However, if only a small part (about 3-5%) of the businesses in China leave, this number worths about US$100 billion [25].

The question is whether Vietnam can attract investment from global manufacturers moving out of China. In the next section, the authors will analyze the factors influencing the attractiveness of Vietnam as an investment location.

4.1. Operating Costs

In a new normal state after the Covid crisis along with the global economic downturn and a decline in consumer income, production costs are considered to be one of the key factors influencing the decision of investors. Vietnam has the advantage of low labor costs compared to other countries in the region.

Table 1. Vietnam minimum wage 2020

Region	2019 monthly minimum wage (VND)	2020 monthly minimum wage (VND)	Increase (%)
Region 1	4.180.000 (180 USD)	4.420.000 (190 USD)	5.74
Region 2	3.710.000 (159 USD)	3.920.000 (169 USD)	5.66
Region 3	3.250.000 (140 USD)	3.430.000 (148 USD)	5.54
Region 4	2.920.000 (125 USD)	3.070.000 (132 USD)	5.14

Source: Ministry of Labor, Vietnam (2020) [26].

Table 2. Region specific minimum wage

Country	Monthly minimum wage
Hongkong	1969 USD
Malaysia	270 – 295 USD
Thailand	248 – 265 USD
Cambodia	190 USD
China	163 -361 USD
Philippines	132 – 190 USD
Vietnam	132 – 190 USD
Laos	124 USD
Indonesia	120 – 298 USD
India	94 - 236 USD
Myanmar	80 USD

Source: Vietnam Briefing (2020) [27].

Although the minimum wage in Vietnam increases annually (up 5.7% in 2020 according to Table 1), it is still at a low level, ranging from 132-190 US$ per month. According to the data in Table 2, the salary level of Vietnam is only higher than that of India and Indonesia. Indonesia's lower minimum wage is influenced by low labor productivity, with less than half of its workforce classified as highly skilled. On the other hand, India has a lower salary than Vietnam, but the business environment is complicated and political security is unstable with the bureaucracy. Furthermore, India is further away from China and does not have a close cooperative relationship with it.

Therefore, when investors look for a place to move production facilities out of China, Vietnam is still a more potential and appropriate place.

4.2. The Quality of the Labor Market

Many researchers believe that the quality of human resources in Vietnam is currently very limited. This is a huge weakness of Vietnam in attracting MNCs with a high technology level. However, the quality of labor in Vietnam is being significantly improved.

Vietnam is now in a period known as the "golden population structure" with more than 52% of the population of working age and about 97% of which is literate. Of this 97%, about 88% have completed secondary school, 5% are fluent in English, and 10% are considered highly skilled (according to statistics from the Ministry of Education and Training). The government has also taken steps such as increasing vocational and technical training to meet the demands of high-skill industries. In 2018, the country had more than 1900 vocational training centers [28]. The rate of trained people of working age in 2017 was estimated at 21.5%, higher than the rate of 20.6% in 2016.

According to the General Statistics Office of Vietnam, labor productivity of Vietnam over the past years has been enhanced considerably with a high growth rate in the ASEAN region. However, it is still very low compared to many countries in the region. According to PPP 2011, the labor productivity of Vietnam in 2018 reached 11.142 USD, only equal to 7.3% of the productivity of Singapore, 19% of Malaysia, 37% of Thailand, 44.8% of Indonesia and 55.9% of the labor productivity of the Philippines. Notably, this absolute gap continues to increase. Therefore, this is also a factor that companies are carefully considering when deciding to choose Vietnam.

4.3. The Strategic Location for a Supply Chain

Vietnam has a strategic geographic location favorable to all global supply chain activities of businesses, from the supply of raw materials for production to the distribution of goods to major markets in different regions.

The first advantage is the location in close proximity with easy access to many markets and customers.

With a 3200km Pacific coastline and many international seaports, goods in Vietnam are easily exported to international destinations such as the US, Europe and Oceania through maritime routes. Most products from Vietnam take less shipping time than products from China. The shorter shipping times are a huge advantage over other low-cost countries like India and Bangladesh, where it takes twice as long to reach these markets [29].

In addition, Vietnam is also a potential fast-growing market for businesses. With more than 97 million people (ranked 15th in the world) and stable economic growth over the past decades, Vietnam is one of the most dynamic economies in the region. In 2019, the Vietnamese economy continued to demonstrate core strength and resilience, supported by strong domestic demand and export-oriented production. Real GDP grew by about 7% in 2019, similar to 2018. This is one of the fastest-growing rates in the region [30]. According to PwC in "The long view: How will the global economic order change by 2050", Vietnam is expected to be among the top 20 economies in the world by 2050 [31]. Furthermore, the middle class is growing rapidly at a current rate of 13% of the total population and is expected to reach 25% of the total population by 2026 [32]. Therefore, consumption in the Vietnamese market will increase rapidly.

The second advantage is the proximity of raw material sources for production.

Vietnam is located near China, which provides favorable conditions for businesses with easy access to abundant raw materials in China. In the case of manufacturers facing a shortage of raw materials, it is possible to replenish quickly from suppliers in China because Vietnam has a transnational road and railway system and economic corridors [33] connecting with China. Cities in northern Vietnam are only 800km from China's most important manufacturing city, Shenzhen, while operating costs are nearly a third lower [29].

4.4. Eco-system

The ecosystem in Vietnam is improving and has the potential to meet the needs of businesses considering production relocation such as infrastructure, business environment and resilience in the face of big shocks such as the Covid-19 pandemic.

Infrastructure

When compared to China, Vietnam's infrastructure is considered to be inferior. This is a major limitation when investors consider moving their factories from China to Vietnam. However, Vietnam is investing heavily in infrastructure, such as highways and seaports, to create an efficient business environment for investors. From 2012 to 2016, Vietnam's growth in infrastructure spending was one of the fastest in ASEAN countries, at 11.5% a year, nearly double its GDP growth [28]. This has helped Vietnam increase 25 places on the World Bank's Logistics Performance Index in 2018 to 39th out of 160 countries, bringing Vietnam ahead of Malaysia, India and Indonesia, and the Philippines [32].

Business environment

Although Vietnam's transparency index is considered poor, over the years, the Vietnamese government has improved its legal and institutional system to create a more transparent and equitable investment environment. According to the statistics of the transparent world organization based on the transparency index (CPI), in 2019 Vietnam increased 21 places in its ranking from 117th in 2018 to 96th in 2019. Furthermore, this is also reflected in the improvement in Vietnam's "Ease of doing business" ranking, which increased from 99 in 2014 to 69 in 2019 [28], an increase of 30 places within 5 years.

International organizations such as the World Bank and ADB have praised Vietnam for its steady macroeconomic growth [29]. Vietnam is forming a stable and open economy with the willingness for strong global economic integration through many free trade agreements (FTAs). Currently, there are 13 agreements signed and ratified, 3 other agreements are under negotiation. The Comprehensive and Progressive Agreement for the Trans-Pacific Partnership (CTPPP) and the EU-Vietnam FTA (EVFTA) are two major advances. The CPTPP came into effect in January 2019, and includes 11 member countries and accounts for about 14% of global GDP [28]. CPTPP members must comply with a number of commitments, from eliminating taxes to improving the legal framework to encourage sustainable investment and protect labor, the environment and intellectual property.

The EU-Vietnam Free Trade Agreement (EVFTA), signed in June 2019, was ratified by the National Assembly of Vietnam on June 8, 2020 and officially entered into force on August 1, 2020 [34]. It will eliminate 99% of all tariffs on goods exchanged between the two sides. The agreement includes important provisions related to environmental protection, labor rights, intellectual property rights and climate change. These FTAs are expected to reduce protectionism and encourage openness, cooperation and coordination, and create a favorable and stable environment for doing business in Vietnam.

Economic resilience

With the successful control of the Covid-19 epidemic through strict governmental measures, Vietnam has demonstrated its ability to cope with major shocks that very few countries in the world can do. In the context of deep integration with the global economy, the Vietnamese economy has been heavily affected by the ongoing Covid-19 pandemic. However, government policies and approaches have shown the ability to recover significantly with an estimated GDP growth rate of 2.8% in 2020 [30]. The prestigious international rating agency S&P Global Ratings publishes a report, in which Vietnam is forecast to rank 2nd on the economic growth rate in the Asia-Pacific region during the crisis caused by the Covid epidemic [35]. The report confirms that Vietnam's exports remained stable; growing 1.42% per month and the amount of foreign investment received was 19.5 billion USD in the first 8 months of the year.

5. Conclusion and Implications for Vietnam

This paper analyzes factors affecting production relocation decisions in the global economy with many major crises and shocks, especially the Covid-19 pandemic. In the past, firms focused on the cost, strategic location of the supply chain (proximity to the market and the raw material sources) and infrastructure. With the changes of the economy and the impact of Covid-19, the factors that concern firms are costs, the labor market and the ecosystem. The ecosystem is a new factor in the decision-making process. It is not only about the infrastructure, but also the business environment and the resilience of the economy in the face of crisises or shocks.

The basic principles behind the decision to choose a production location of foreign enterprises are all related to economic efficiency [36]. Businesses will choose to invest in locations with economic goals followed by strategic (or indirect and long-term) objectives. Economic goals (or profits) include low labor costs and good quality of labor, abundant and accessible inputs, high tax incentives and a good market for output. The strategic goals are to access scarce resources and acquire new capabilities as well as enter a dense industrial network. In theoretical research on MNCs and location selection, Dunning and Lundan (2008) generalized into three groups the factors creating the attractiveness of a location and influencing the choice of investment sites of MNCs including: endowment effects, agglomeration effects and government policy and institutional quality [37].

Investment mobility has been taking place and Vietnam is being evaluated as one of the most attractive countries to attract the shift. Currently, many large companies have closed factories in China and are opening factories in Vietnam such as Apple, Samsung, Nike, Adidas, LG, Foxconn and etc. Many of the world's largest corporations are planning to move all their outsourcing activities to Vietnam. Vietnam has embraced some of China's labor-intensive manufacturing industries [38]. The US-China trade war imposes tariffs on Chinese goods, while Vietnamese goods are still easily imported. Big tech companies are entering Vietnam and balancing their production with China. Apple recently started making Airpods in Vietnam to cut costs of importing from China. Samsung has also closed a factory in China and opened a new factory in Vietnam. So, Vietnam is attracting companies from textiles to large-tech electronics manufacturing.

However, to create advantages and compete with other countries in the region in attracting FDI, Vietnam needs to make a difference.

In terms of endowment effects, Dunning and Lundan (2008) distinguish between natural and created resources [38]. In addition to available tangible and intangible resources such as natural resources, the geopolitical position in the dynamic and rapidly growing ASEAN region, closeness to major countries such as China, South Korea and India, Vietnam needs to foster and consolidate created resources to attract investors. These resources include: transportation infrastructure, energy, industrial zones, skilled labours and so on. In order to attract MNCs to invest in the high-value stages of the production chain, improving the quality of labor is a very necessary condition – there must be workers with full cultural education and professional capacity.

Businesses choose a location to benefit from agglomeration effects - This is the positive effect arising from the co-location of firms. To create this effect, Vietnam needs to have a geographic planning policy, prepare premises in industrial zones to welcome foreign businesses, and have specific policies on priority areas and localities. In addition, the government also needs to further promote the development of domestic enterprises and supporting industries to create the effect of attracting investors.

In terms of policy and institutional quality, direct incentives/remuneration in tax will no longer be a strength in the future, especially for MNCs seeking strategic assets and dispersing FDI in the location for the long term. In fact, the open-door policy frameworks have become too popular and are no longer attractive enough to foreign investors. Therefore, in addition to maintaining political and macroeconomic stability, continuing to promote international economic integration, and improving the economic resilience to external shocks, the government should have differentiated policies such as creating regulations that encourage high productivity investments, target high quality business inputs, and create the availability of suppliers and industries.

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