



Samsung's Reconstruction of its Global Production Networks: From China to Vietnam, from Vietnam to Diversification

This Briefing Note analyses Samsung's reallocation strategy from 2008 to 2022, a period in which Samsung constantly re-examined its supply chain and production strategy and actively expanded or reallocated its production and R&D facilities.

Background

Multinational enterprises (MNEs) such as Samsung consider a variety of factors in deciding where to allocate production and other activities. These factors have typically included labour and land costs, infrastructure and local market potential, as well as policy factors such as taxation and host government attitude to MNEs. Geopolitical tension and economic uncertainty have become increasingly salient for many MNEs.

In particular, U.S.-China political tension and the current slowdown in China's economic growth have prompted MNEs to carefully consider their investment plans in China and look for other possible destinations. Since Vietnam acceded to the World Trade Organization (WTO) in 2007 and participated in the ASEAN Economic Community (AEC) in 2015, it has gradually completed several economic reforms and provided more investment opportunities for foreign investors.

From China to Vietnam

Starting from its first Vietnamese plant in Bac Ninh in 2008, Samsung has taken steps to reduce its dependence on China and diversify its supply chain and production networks. The first move to Vietnam was tentative, but the economic outcomes encouraged Samsung to increase its investment in Vietnam.

Utilising its experience gained from China, Samsung successfully built its second overseas smartphone manufacturing plant in 2008 and found it was able to operate its Vietnamese business at a lower cost than its China operations. Since then, Samsung has gradually moved its production lines of smartphones, televisions, displays and chips to Vietnam. It has been Vietnam's largest foreign investor since 2014.

Samsung largely shifted its manufacturing from China to Vietnam by 2019. From 2017 to 2020, Samsung closed four of its Chinese factories in Shenzhen, Tianjin, Huizhou and Suzhou in quick succession, basically stopping its electronic manufacturing activities in China. As of August 2020, Samsung had six factories in Vietnam, two of which are the world's largest Samsung smartphone production factories and one of which is Southeast Asia's largest household electronics production plant, making it the largest employer in Vietnam's electronics industry.

The Comprehensive Strategic Partnership (CSP) between Vietnam and South Korea since the end of 2022 has opened new opportunities for both countries, strengthening Vietnam's position as Samsung's global production base and opening ways for it to be the group's centre of global R&D centres. By the middle of 2023, Samsung's cumulative investment in Vietnam has reached USD 20 billion.

Overall, China and Vietnam have taken similar actions to attract FDI, such as improving local infrastructure, building industrial parks, and establishing special economic zones.

However, differences in the local labour market, along with production stability regarding geopolitical factors and supply chain management, have driven Samsung's decisions to move out of China and mainly to Vietnam.

Modern electronics manufacturers demand not just cheap labour but also skilled labour and a stable and predictable labour market. China's labour costs have substantially increased as a result of manufacturing growth. A manufacturing worker in China can earn nearly three times as much as a Vietnamese worker, based on the average monthly wage bill in Hanoi compared to Beijing and Shanghai. Furthermore, the demand for higher-level skilled process-assembly workers has increased since the introduction of automation and advanced digital technology in the production process. Even though Samsung has suffered from skill shortages in Vietnam, its position as Vietnam's largest single source of FDI and its near monopsonic positions within its Vietnamese industrial park locations have provided it with **more influence and higher bargaining power than in China**, minimising the challenges of labour retention such as job hopping and poaching. Given less competition with other MNEs to maintain the business-government relationship in Vietnam and China's processes of administrative decentralisation, Samsung is able to influence the local labour market and establish its training system, supplying itself with a stable and loyal labour force.

Having one of the highest smartphone penetration rates in Southeast Asia and the fast-growing middle class, Vietnam shows strong domestic market potential for MNEs. Samsung had dominated the Chinese smartphone market before 2010, with nearly 30% market share. However, its market share dropped to around 1% by 2018 due to the fierce competition with China's local electronics brands and manufacturers as well as Samsung's Galaxy Note 7 Safety Recall programme in 2016. Meanwhile, the competition in the Vietnamese market was less intense. Samsung has consistently held around one-third of the mobile phone market. Vietnam is also close to one of the world's largest markets, Southeast Asia, enabling Samsung to meet the needs of regional markets better and bringing more opportunities for it to expand its business.

Apart from the attractive labour and product markets, the geopolitical context is another driving force behind Samsung's relocation decisions. The amity between China and South Korea eroded after China was firmly against South Korea's acquisition of the US-made Terminal High Altitude Area Defence (THAAD) anti-ballistic missile system in 2014. The separation of economic issues from security issues was over, and Korean economic and cultural communications with China have entered a cooling era. During the same period, Vietnam's government prioritised FDI upgrading and worked closely with the South Korean government, including the conclusion of the Vietnam-Korea Free Trade Agreement. Despite the escalated tensions in the South China Sea, Vietnam has been able to maintain its political and economic relationship with China and other surrounding countries, providing sufficient geopolitical stability and certainty.

Participation in the Comprehensive and Progressive Agreement for the Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP), as well as the conclusion of several free trade agreements (FTAs) with the European Union and the United Kingdom, helps Vietnam move up the global value chain. Unlike China, Vietnam has a relatively friendly relationship with Asian and Western countries and is a safer location for MNEs to produce products that serve clients outside of China. Under the heating tension between Beijing and Washington and the wide adoption of de-risking from China strategy across major economies, many MNEs in China,

including Samsung, have to shift to a "China plus one" strategy to reconstruct their global supply chains and move to other countries such as Vietnam to avoid potential loss from high tariffs and ban on made-in-China products.

However, in the short run, China still serves as the world's biggest manufacturing hub and plays a crucial role in the global supply chain. Its market size and mature industrial chain still attract MNEs. Specifically, its provision of essential raw materials and components is vital to many advanced manufactured products. Locating new production sites in Vietnam has helped Samsung get the necessary materials and components from Chinese suppliers while the pandemic suddenly disrupted its supply chain. Its concerns about the resilience of the supply chain have deepened since the acceleration of the tech war, including America's Chips and Science Act and China's ban on the export of Gallium and Germanium, two critical raw materials for producing semiconductors. These disruptions in supply chains, together with geopolitical tensions and global inflationary pressures, have made Samsung reconsider diversifying the supply chain.

From Vietnam to Globalization

Skills shortages and supply chain disruptions have exposed risks and uncertainties of shifting production facilities and resources to Vietnam. Rising FDI and increasing demand have challenged the bureaucratic and physical infrastructure in Vietnam, such as the electricity grid and the transportation system.

To avoid supply chain disruptions caused by the shortage of components, Samsung has created a Samsung mode of industrial park. Many dependent component suppliers to Samsung have moved along with Samsung's investment in different countries, helping Samsung quickly build its supply chain in each market. Some are requested to solely supply to Samsung if they aim to build a long-term relationship with Samsung, which ensures Samsung's dominant position and advantages in its new location. For example, this mode has succeeded in Yen Phong Industrial Park (YYIP), the largest industrial park in Bac Ninh, Vietnam. Establishing its high tech mobile phone handset factory and research centre in YYIP, with several component suppliers nearby, enabled significant growth and increased Samsung's price competitiveness in Vietnam's market.

The effectiveness of this industrial park mode is impacted by a vast supply network. Even though Samsung moved its supporting screw factory from China to Vietnam, it is difficult for the other supporting manufacturers of this screw factory to move together. One reason is that Vietnam cannot produce the required raw materials, such as plastic and steel. The cost and risk of moving a complete supply chain of the screw are very high. So far, most manufacturing work completed in Vietnam is assembly, and nearly 80% of the materials depend on imports. The travel restrictions and lockdown policy during COVID-19 revealed the risks of over-dependence on imported materials and the centralisation of production in one country. The shortage of raw materials and essential components from China decreased the production capabilities of Samsung's manufacturing sites and suppliers in Vietnam. Therefore, many MNEs, including Samsung, are in the process of diversifying their supply chains regardless of what kind of industrial park mode they are in. Amid uncertainties arising from the US-China trade war and tech war, many manufacturers opt for a 'China-plus-many' strategy.

To maximise its production capacity in Vietnam, Samsung participates in the development of local small and medium enterprises. It works closely with Vietnam's government to set up skills training and consultation programmes, improving labour productivity and the quality of the products. These actions aim to

reduce its dependence on imported materials and to secure its production and supply chains. The new research centre in Hanoi is built to support the production of semiconductor chip grids, diversifying its semiconductor production networks and mitigating the impacts of America's chip ban on China.

In addition to relocating most of its operations to Vietnam, Samsung has also moved some of its production lines back to production facilities in South Korea and is moving into other locations. In 2022, Samsung opened the world's largest smartphone factory near New Delhi, helping it tailor its production based on India's requirements and preferences. Samsung is rapidly expanding in India's fast-growing smartphone market, which is also the world's second-largest after China. The establishment of a smartphone factory in India balances its production allocation and reduces the risks of over-dependence on smartphone production from Vietnam. This action also increases its competitiveness to compete with the leading smartphone brands in India, such as Xiaomi. In response to uncertainties in semiconductor production, Samsung plans to expand its labour-intensive production lines to Vietnam and technology-intensive lines to Japan and America while announcing the upgrade of its current R&D and production facilities in China.

Instead of abandoning the Chinese market, Samsung keeps pace with China's technological development and adjusts its investment in the Chinese market. China is the largest electronics market, and it has a high demand for high-end manufacturing equipment such as Multi-Layer Ceramic Capacitors (MLCC). In 2021, Samsung's MLCC factory in Tianjin successfully realised the mass production of its latest products, making it one of the world's leading production bases in this area. It has also invested in new

OLED display production lines in Tianjin while moving LED display production lines to Vietnam and Mexico. These actions indicate Samsung's strategy to build its global production network and to improve its competitiveness in the global and regional markets: investing in the high-end advanced segment in countries with more complete industry lines and higher production efficiency and transferring lower-end manufacturing products to lower-cost and broader markets.

Relocation of production facilities is a complex process, covering concerns about production costs, geopolitical context and the resilience of the global supply network. Samsung's relocation of its production networks and supply chain reflects pressures for diversification experienced by many MNEs.

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