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Solutions to Promote Businesses to Participate In the Supply Chain of the Electronics Industry

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Abstract:

Vietnam is an attractive destination for foreign direct investment (FDI) inflows in the electronics industry, but it is facing many challenges such as new investment at the level of processing, domestic electronics enterprises have not contributed much in the supply chain of electronic goods, etc. The article identifies opportunities and challenges in the context of increasingly deep integration, thereby helping Vietnam's investment industry to break through and develop effectively

Keywords: Electronics industry, supply chain

1. Introduction

In recent years, many major electronics companies in the world have invested in building high-tech electronic product production facilities in Vietnam such as Samsung, LG, Foxconn, Fukang Technology, LG Display Hai Phong. Computer products and electronic components are increasingly diversifying products according to domestic and export market demands. At the same time, the export structure of electronic products has changed positively, increasing the proportion of complete and semi-finished products.

Economists point out that the electronic components industry increasingly accounts for a large proportion of total export turnover. The General Statistics Office also gave a figure, if in 2011, exports of electronics, computers and components only accounted for 4.8% of the total export turnover, by 2015 the proportion has doubled, accounting for 9.6% and always maintaining more than 10%.

In the period from 2011 to 2022, the group of electronics, computers and components continuously achieved a high growth rate. The growth rate in each year is: 2011 increased by 29.9%; in 2012, it increased by 68.4%; in 2013, it increased by 35.5%; in 2014, it increased by 7.5%; in 2015, it increased by 36.5%; in 2016, it increased by 21.5%; in 2017, it increased by 38.6%; in 2018, it increased by 12.5%; in 2019 and 2020 both increased by 22.8%; in 2021 it will increase by 13.5% and in 2022 it is estimated to increase by 9.7%. On average, the whole period 2011-2022 increased by 25.6%.

The strong growth rate of the group of electronics, computers and components has made the export turnover of this group surpass textiles and garments to become the 2nd largest main export group of Vietnam.

Vietnam's electronics industry currently accounts for 17.8% of the entire industry, mainly producing electronic products, computers and optical products. With the presence of factories from multinational companies such as Samsung, Foxconn, Intel, etc., Vietnam is one of the leading exporters of electronics in the world. In 2020, Vietnam has risen to rank 12th in the world from 47th in 2001 and ranked 3rd in ASEAN in terms of electronics exports.

Currently, Vietnam has over 2,000 enterprises participating in the electronics industry, accounting for 54.8% and FDI accounting for 45.2%. The percentage of enterprises participating in direct exports is quite high (31%) and mainly FDI enterprises. From 2013 to now, the total annual export value has exceeded 30 billion USD.

The biggest advantages of Vietnamese electronic components manufacturing enterprises are the young population, abundant labor resources, favorable geographical location and being located in an area with a fast-growing and dynamic industry. It is receiving attention and creating development mechanisms and policies of the State.

However, electronic component manufacturers in Vietnam also face many difficulties. In fact, Vietnam's workers are still limited in possessing soft skills, foreign language proficiency, teamwork ability, and information technology skills. Many employees, although trained, still do not meet the requirements when working, causing employers to lose time to retrain.

That shows that Vietnam has not yet had a high-quality human resource strong enough to adapt to the requirements of being ahead of technology. Not only that, the "gray matter" of Vietnamese businesses is attracted to transnational companies.

2. The current situation of Vietnam's electronics industry

With the advantage of a young population, nearly 60% of the total population of working age (17-60 years old), abundant labor resources, favorable geographical location and located in an area with a fast-growing and dynamic industry, especially for the investment industry. Therefore, Vietnam has great opportunities to attract investment capital, transfer technology and learn management knowledge and train human resources from developed investment industries in the region. The cost of labor in Vietnam is also relatively low. Specifically, operating costs and labor rental prices in Vietnam are only 1/3 of that of India and 1/2 of China.

In addition, with a variety of important mineral resources necessary for the development of the electronic materials industry such as iron ore, rare earths, titanium, rutin, barite, ilmenite, etc. Vietnam is fully capable of becoming a supplier of raw materials and chemicals for the investment industry of other countries in the form of exploiting raw materials, finished products or semi-finished products at low prices. In particular, with a population of over 90 million people, Vietnam is also a potential consumer market. The Vietnamese government always encourages and supports foreign companies to invest and cooperate with Vietnamese businesses in the field of information technology.

Specific opportunities for Vietnam's investment industry in the coming time include: (i) Vietnam's ability to export information technology goods and electronic components is increasing. From January 1, 2006, the commitments of the ASEAN Free Trade Area (AFTA) on the roadmap to reduce tariffs on electronic goods have been fully effective. Vietnam's accession to the World Trade Organization (WTO) and a series of new-generation free trade agreements (TPP, EU - VIETNAM FTA, etc.) have also created favorable conditions for enterprises in the investment industry to promote their great potential to bring their products to the region and the world. In recent years, the export sales of electronics, computers, and phones have been ideal investments of large corporations in the world's information technology.

(ii) Attracting foreign investment capital increased sharply, contributing to creating a driving force for economic development. With a large market, continuous positive economic growth, along with a stable political system, Vietnam is increasingly becoming an ideal investment attraction for large corporations in information technology in the world.

It is known that investors when choosing an investment location are usually based on two main factors, namely labor rent and tax. Developing countries already have the advantage of cheap labor rents, when participating in the WTO, specifically the Information Technology Agreement (ITA) will have more advantages in tax rates for this item, so the attraction to foreign investors will certainly increase significantly. especially foreign direct

investment from large corporations in the world. This is also the biggest opportunity for Vietnam. According to data from the Foreign Investment Agency, the Ministry of Planning and Investment, up to now, Vietnam's investment sector has attracted more than 10 billion USD of FDI with big names such as Samsung, Foxconn, LG, Panasonic, Intel, Electronics, Nokia... The attraction of Vietnamese investors today is still large-scale mobile phone factories, of which Samsung is the largest with two factories of 2.5 billion USD in Bac Ninh and 2 billion USD in Thai Nguyen.

(iii) The price of electronic and telecommunications products will decrease a lot when tariff barriers are removed and this is also the driving force for the development of the electronics industry and the telecommunications equipment manufacturing industry.

(iv) Opportunities for Vietnamese businesses to access a large domestic and international market when Vietnam has joined the WTO with 150 member countries (accounting for more than 90% of the population, 95% of GDP, 95% of global trade value); has become a member of the ASEAN Economic Community; have been completing new free trade agreements such as TPP, EU - VIETNAM FTA...

(v) The opportunity to make Vietnam the "second factory of the world" when a series of large electronics and telecommunications corporations announced their withdrawal from the Chinese market, moving to Southeast Asia. The interest and increased investment of the three leading countries in information technology, namely the United States, Japan, and South Korea, will create momentum to attract many other investors to participate in the development of Vietnam...

However, Vietnam's investment industry is still considered a young industry. Industrial electronics including electronic components and related spare parts account for about 3% of electronic and informatics products. The dependence on foreign suppliers for technology is the biggest challenge for the development of Vietnamese investors. Human resources capable of designing and implementing technological processes are still a difficult barrier to overcome. The domestic private sector is still weak, investment in research and development is not significant...

3. Challenges for the electronics industry

First, competitive pressure at home: This is a huge challenge for Vietnamese businesses. The competitiveness of Vietnamese enterprises is currently weak. This is clearly reflected in the small size of capital, experience in business management, technology, weak staff qualifications, and low labor productivity.

Second, the pressure to train high-quality human resources is increasingly weighing on the Vietnamese university system. Vietnam does not have a strong enough team to adapt to the requirements of being ahead of technology, while the "gray matter" of Vietnamese businesses is attracted to transnational companies.

Third, the scope and scale of Vietnamese enterprises in the international arena are mostly quite small. The change in product structure from "hard" to "soft" is also a great challenge for manufacturing enterprises in the field of investment and investment.

Fourth, when integrating foreign investors who are mainly interested in the service sector, fewer businesses will be interested in equipment production. Domestic manufacturers still have opportunities to grow, however, they will face the biggest challenge of competing in price with imported goods. Soon, the import tax on all equipment will only be equal to or lower than the import of components, not to mention the challenges when Vietnam joins the Expanded Information Technology Agreement, so industrial production profits are still very low.

4. Proposals and recommendations

The trend of convergence of information and telecommunications technology has taken place strongly and clearly in the past period, showing that the value of electronic products will increasingly focus on intelligence, compactness, energy saving and interconnection.

In order to effectively integrate into the global economy and catch up with advanced countries in the region and the world, Vietnam needs to shift from competing in low labor costs and resource exploitation to competing in comparative advantage in knowledge-based and higher-value-added goods and services. Competitiveness must be based on innovation not only in the technological aspect but also on improvements to production processes and products, entrepreneurship, education systems, market-friendly institutions, and the ability to properly manage the macroeconomy.

To do so, the State needs to have a breakthrough in the administration and implementation of solutions and policies to invest in building high-quality human resources, means for research and development of key national strategic electronic products, promoting the purchase and transfer of technology, etc. serving the industrialization strategy in general and the development of Vietnam's investment industry in particular.

In the immediate future, to actively implement the Prime Minister's Decision No. 12/2011/QĐ-TTg dated 24/02/2011 on policies on the development of a number of supporting industries; review and supplement preferential policies to encourage and attract investment in the production of supporting industry products prioritized for development in the investment industry. Review, supplement and complete standards and technical regulations for supporting industrial products in the investment industry. On that basis, develop regulations on the application of these standards and technical regulations in production in order to improve the quality and ensure the prestige of supporting industry products in Vietnam's investment industry.

Develop human resources to meet the requirements of quantity and quality for the field of investment and investment. Encourage the application of the 3-party joint training model (enterprises - institutes, schools - state management agencies) to train high-skilled human resources at the request of enterprises. Develop linkage programs and information channels between international enterprises and domestic supporting industry enterprises in order to actively contribute to promoting investment and technology transfer, management models, research and development of supporting industry products in the investment industry.

To encourage all economic sectors to invest in the investment industry of different scales and types, from assembling finished products to producing components, spare parts and auxiliary products, with special emphasis on attracting foreign investment from multinational corporations. To restructure the production and development of specialized electronics, including the production of products, components, spare parts and auxiliary products for the fields of informatics, telecommunications, medical electronics, industrial electronics, mechatronics, measurement and automation.

At the same time, develop and expand the domestic market and export for the investment industry. For the domestic market: Strengthen the survey and assessment of demand for the use of e-commerce products in State agencies, enterprises and society. Develop a mechanism to encourage organizations and state agencies to use domestically produced electronic products; For export markets: Develop a program to promote the image of "safe and high-quality" electronic products originating in Vietnam in foreign markets.

To strengthen international cooperation activities, trade promotion, and access to independent markets or within the framework of the National Trade Promotion Program. Supporting enterprises to establish branches, representative offices of enterprises or overseas commercial centers to learn about market needs and tastes, promote products and brands, sign contracts, and organize product consumption.

In addition, efforts are made to attract investment from leading electronic enterprises in the world through the reform of administrative procedures in the field of investment to attract leading electronic enterprises in the world and related satellite enterprises to invest in Vietnam. Supporting the attraction and implementation of large FDI investment projects in the investment industry.

In addition, focus on developing key products in the investment industry. To formulate and promulgate mechanisms and policies to support the production of electronic products prioritized for development specified in the Prime Minister's Decision No. 49/2010/QĐ-TTg of July 19, 2010. Formulate policies to promote technology transfer, accelerate the application of high technology in the investment industry on the basis of the association between the State - enterprises - training institutions to encourage through public-private cooperation. In particular, forming investment clusters, promoting the gathering and investment of businesses to create linkages and improve the operational efficiency of electronic enterprises...

With the deepening of international integration, tariffs reduced to 0%, domestic production will face competitive pressure with imported goods, because consumers then have access to imported products at cheaper prices than domestic production. Therefore, in the coming time, the State needs to soon implement the above contents in a strong and timely manner; Vietnamese businesses also need to be prepared in terms of competitiveness and technology to be able to participate in the global production value chain and contribute substantially to making Vietnam a major producer of electronic equipment by 2030.

5. Conclusion

In order to strengthen the ability to participate in the supply chain of the electronics industry, Vietnam's electronics industry should focus on implementing a number of specific solutions.

First, it is necessary to focus on solving the problem of shortage of qualified suppliers to supply current electronics factories in Vietnam.

Investing in the application of technology to production will increase the ability to participate in the chain.
Photo: Khac Kien

Second, it is necessary to strengthen the capacity of enterprises and the ability of enterprises to absorb technology to be able to take advantage of FDI inflows, shifting to focus on participating at a higher stage in the supply chain, first in the region and then in the global value chain. In addition, promote investment attraction in the field of electronic chip production as an input for the integrated electronic circuit and transistor manufacturing industries.

Third, promote trade promotion to export finished products to potential markets that are tending to increase imports of Vietnam's electronic products.

Fourth, take advantage of the advantages in new-generation free trade agreements to improve technology and quality of input materials and components, increase technology absorption and develop the domestic electronics industry.

Fifth, accelerate the development of the system of seaports, roads and energy infrastructure to increase Vietnam's competitiveness in attracting FDI from the wave of electronic component production out of China.

Sixth, strengthen the training of high-quality human resources in the electronics industry to create a foundation for developing and improving the capacity of domestic enterprises to meet the requirements of enterprises at the top of the chain.

In my opinion, promoting the link between FDI and domestic enterprises, hoping that the Government will promote the development of production areas, industrial parks, economic zones, etc. to be more proactive in sourcing raw materials, forming a closed chain of links.

At the same time, completing legal documents related to investment, transfer of advanced, environmentally friendly technology and sustainable development... Businesses need to be more proactive in seeking technology transfer opportunities from FDI enterprises. At the same time, promoting the development of supporting industries associated with global value chains.

It is important to continue to improve the competitiveness of businesses, improve profit margins based on innovation, creativity and dare to venture into new production and consumption trends. That requires an overall review and assessment of both the institutional environment for investment and business, as well as the preferential and support policies that are currently scattered and fragmented by each industry/object as it is today.

Next, it is necessary to create an ecosystem of links between businesses and universities, vocational training schools, providing services on technology transfer, innovation, management models, business models to supply, training, and retraining human resources.

To increase the localization rate of supporting industry enterprises, first of all, enterprises must be themselves, including sustainable development factors and many enterprises have implemented them. Along with the favorable policy, working with FDI enterprises to propose support, companionship, and commitment to order according to the criteria with technology transfer to be able to bring products into the value chain.

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