

# FACTORS AFFECTING THE DEVELOPMENT OF THE BASIC CHEMICAL INDUSTRY IN VIETNAM

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Abstract: According to statistics of the Vietnam Chemical Group, the proportion of industrial production value of the new group of basic chemicals accounts for about 7% of the total industrial production value of the whole industry, ranking fourth after fertilizer, rubber, and detergent products. To fully and comprehensively evaluate the position and role of the basic chemical product group as well as the relationship of basic chemical products to the development of the chemical industry and other industries in the national economy, the article presents research on factors affecting the development of the basic chemical industry in Vietnam, thereby assessing the advantages and disadvantages of basic chemical products.

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## 1. INTRODUCTION

Vietnam's basic chemical industry (basic chemicals) has a particularly important position in the national economy, producing basic chemicals laying the foundation for the chemical industry (chemical industry), and creating countless values for other industries (petrochemical, building materials, metallurgy, textiles, pharmaceuticals, automobiles, electronics, and telecommunications, aerospace, important industries in the country,...), making a very important contribution to the domestic industry. However, up to now, the basic chemical industry has only occupied a modest position in the group of chemical products. According to statistics of the Vietnam Chemical Group, the proportion of industrial production value of the new group accounts for about 7% of the total industrial production value of the whole industry, ranking fourth after fertilizer, rubber, and detergent products.

Basic chemical products are produced from natural materials such as petroleum, coal, air, water, and ores. Meanwhile, most downstream chemical products (which are raw materials for other industries) use raw materials belonging to the group of basic chemicals. Therefore, the development of the chemical industry and industries, in general, depends heavily on the supply of basic chemical products, which are closely related to each other and are typical examples of the effective use of natural resources, a harmonious balance of resources, and environmental protection for the ultimate goal of sustainable development.

Thus, to be able to fully and briefly assess the position and role of the basic chemical product group as well as the relationship of basic chemical products to the development of the chemical industry and other industries in the national economy, it is necessary to consider the roles and impacts of those relationships in the chemical industry value chain diagram.

For the reasons mentioned above, the research team focused on analyzing the factors affecting the development of the basic chemical industry in Vietnam, focusing on domestic factors, the development conditions of related supporting industries, and the impact of FTAs on the basic chemical industry.

## 2. Factors Affecting And Affecting The Development Of Vietnam's Basic Chemical Industry

## 2.1. Domestic factors

distribution to countries in the region.

In terms of natural resources, Vietnam has very favorable advantages for the development of the manufacturing industry of basic chemical products such as crude oil, natural gas, coal, and ores. In terms of geographical location, Vietnam is located in the busiest trade axis in the world with a long coastline and a dense river system, which is especially convenient for the production of basic chemicals for

In terms of population, Vietnam is the third most populous country in Southeast Asia, the proportion of the population in the working age (15-64 years old) accounts for 69.4%. The large domestic consumption market leads to increasing demand for basic chemical products, and at the same time, a high proportion of the population of working age provides abundant human resources, and low labor costs, and creates favorable conditions for the development of the basic chemical industry. However, the qualification of the labor force has been slow to improve, especially for young workers, which has been a barrier to labor productivity in the chemical industry. The training of high-quality human resources to meet the development needs of industries, especially the production of basic chemical products, is still inadequate. In terms of infrastructure, the quality of transport infrastructure, electricity and water supply networks, waste treatment, post and telecommunications, logistics services, public services, and other support services in Vietnam are gradually being improved and improved, thereby enhancing national competitiveness and attracting large investors in the world.

Regarding the political-legal environment, the political institution in Vietnam is relatively stable, the legal regulations have been revised in line with market rules, the state apparatus is clean, and the legal system and law enforcement are fair, thereby promoting the formation and development of the market transparently, creating favorable conditions for enterprises' production and business activities. Thus, in general, Vietnam has many favorable domestic conditions for the development of the chemical industry and the basic chemical industry in particular.

## 2.2. Influence from relevant supporting industries

According to the production chain, both organic and inorganic basic chemical products are produced after the chemical refining process from the extraction and processing of raw materials. basic chemicals are input materials for further processing, becoming fertilizer products, industrial chemicals, plastics, propylene oxide, etc. Some of these products become final products for consumption, others are not final products to be used but are raw materials for further processing before becoming products provided to end users. Therefore, the development of basic chemical production cannot be separated from the linkage in the chemical product production chain, which is an immutable law.

The development of related supporting industries is reflected in the provision of services for the basic chemical manufacturing industry, that is, the mining, energy, scientific, and technical consulting services, education, and training. The supporting industries provide materials, spare parts for construction services, equipment maintenance, and production lines with quality and competitive prices, creating a microcomparative advantage for basic chemical products.

Building and creating close linkages between enterprises in the chemical industry, between enterprises providing scientific and technical services, training with enterprises producing basic chemicals, and between FDI enterprises and domestic enterprises will help solve problems related to production operation and quality control, which will bring many advantages to help enterprises improve their competitiveness. In addition, the development of the basic chemical industry is highly dependent on the progress of science and technology in the country because the basic chemical product manufacturing industry often uses a closed technological process and must ensure strict environmental regulations; The machinery, equipment, tools, and materials used, in addition to having to satisfy operating conditions in harsh environments against chemical corrosion, must also have a very high degree of automation to ensure safety.

The linkages between influential factors related to the development dynamics of the basic chemical product manufacturing industry in the context of globalization.

## 2.3. Impact of FTAs on the development of basic chemical product production

So far, Vietnam has completed negotiations and signed trade agreements CPTPP, RCEP, and FTA with the EU (EVFTA), with the Customs Union (Russia, Belarus, Kazakhstan), EFTA countries, and Korea... Which, the participation in the EVFTA agreement with the European Union and CPTPP with partners is 11 countries with very high development levels and is an export market that accounts for a very high proportion of Vietnam's total exports.

Being well aware of opportunities and challenges to seize and implement comprehensive reforms will bring Vietnam's economy into deep integration with the world economy. Actively participating in the global production network and value chain, helping Vietnam escape the trap of middle-income countries to become a high-middle-income country by 2035.

## 3. Difficulties And Advantages Affecting The Production Of Basic Chemical Products

#### 3.1. Favorable factors

The management mechanisms and policies of the State are increasingly open. In the context of a dynamic market economy, an increasingly open political system, together with a stable political regime and an equal business environment, have created favorable conditions to attract all economic sectors to invest in economic development in general and the chemical industry in particular, including the basic chemical industry. It is this socialization of investment that helps the basic chemical industry to develop a rich product structure to meet the increasing consumption needs of society.

The resources, including abundant human resources, inquisitive, industrious... and abundant natural resources, including minerals, raw materials from seawater, etc., create conditions for the development of a balanced chemical industry, ensuring domestic demand and boosting exports.

## 3.2. Difficulties and challenges

Lack of capital, techniques, and modern technology are major influences on the development of the industry, especially for projects that require large investment capital, such as oil refining projects, projects to produce basic chemicals such as soda, caustic soda, methanol, etc.

Infrastructure in recent years has improved a lot, but it is still weak, including roads, ports, infrastructure of industrial zones, soft infrastructure, and other supporting industries, which are hindering the process of accelerating the formation of large chemical industry complexes.

Labor and human resources have not met development needs, low quality, and lack of flexibility in the labor market. There is still no good mechanism to promote Vietnamese human resources at home and abroad.

#### 4. CONCLUSION

In general, Vietnam's basic chemical production has certain competitive advantages such as abundant natural resources, population size, abundant labor resources, and political stability, but some major difficulties and challenges need to be overcome, especially in terms of capital, science, and technology, and attracting FDI.

The article presents a summary of the results of research on factors affecting the development of the basic chemical industry in Vietnam, thereby assessing the advantages and disadvantages of the development and production of basic chemical products. Research results create a premise for proposing appropriate solutions and policies to develop Vietnam's basic chemical industry in the coming time.

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