Problems and prospects for the development of the furniture industry in Vietnam

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Abstract. Vietnam is a developing country with a diversified economy. The furniture industry in Vietnam is one of the most dynamic and successful industries in the process of international economic integration. In recent years, Vietnam's woodworking industry has undergone profound changes, becoming one of the key industries in Vietnam. The furniture industry has become Vietnam's fifth largest export industry after the oil refining, light industry and fisheries. Vietnam became the first exporter of furniture to Southeast Asia. Today, the furniture industry in Vietnam accounts for 6–7% of the global market. Despite many achievements of the woodworking industry, there are many shortcomings. Among them we can single out the following shortcomings: second-rate quality of products, poor marketing, difficulty attracting investment, worn-out equipment, low qualifications of staff, and dependence on import.

1. Introduction
One of the main characteristics of the furniture industry is the integrated use of wood raw materials. Therefore, the orientation and method of development of the furniture industry have a direct impact on the goals of sustainable development, protection and environmental friendliness of the wood processing industry as a whole in Vietnam.

Currently, the country's forest area is 14 491 295 ha. The coverage level is 41.65%. Raw materials for the furniture industry come through two channels: domestic wood and imported wood materials. As for the source of domestic wood materials, in 2014 the government decided to significantly reduce wood harvesting; in the future, the supply of domestic wood materials in Vietnam will depend on the current scale of afforestation and reforestation. The area of forest plantations is currently 4.2 million ha, and wood reserves are about 60 million cubic meters. However, the quality of domestic wood is low, which leads to a decrease in the added value of manufactured products, and also affects the quality of the final wood-based products [1].

To date, both in Russia and in Vietnam there are no close ties between logging and wood processing enterprises. Most wood-processing enterprises are passive when complex processing of raw
materials is considered, which leads to an increase in the cost of wood-based products, and also indirectly reduces the competitiveness of products in the international and domestic markets. The problems and prospects of development of the wood processing industry in Vietnam have been discussed by Russian (V F Kovyazin, S V Tereshchenko, Z A Dikaya) and foreign (N L Fam, T N Nguyen, T T Jang Thi) scientists. Our study is based on traditional methods of information processing: monographic, logical, comparisons, and others.

2. Methods and Materials

In Vietnam, there are currently about 4,332 woodworking enterprises, 340 handicraft villages and a large number of households that manufacture and sell wooden furniture.

A significant increase in the number of woodworking enterprises in Vietnam in the last decade is due to the following reasons:

1) The business environment in Vietnam has improved significantly in general and in the woodworking industry in particular.

2) The degree of deep integration of the Vietnamese economy into the global economy, due to the openness of trade, allows Vietnamese producers to sell their products in large markets, which contributes to an increase in the export of wood-based products.

3) Increase in foreign investment in the Vietnamese market. The decrease in exports of furniture from China to the United States, due to the introduction of anti-dumping duties on wooden furniture from China in the United States, created opportunities to increase exports of Vietnamese furniture and, as a result, attracted investment in the Vietnamese market.

4) In world markets, there has been an increase in demand for some wood products, such as wood chips, garden furniture, and home furniture. In the future, these factors will affect the development of the woodworking industry; therefore we can predict an increase in the number of woodworking enterprises in Vietnam in the future [2, 3].

According to the Ministry of Agriculture and Rural Development, the majority of woodworking enterprises are small. Enterprises are unevenly distributed across the country. About 70% of enterprises are concentrated in the central coastal area and the southeast, in the cities of Ho Chi Minh, Dong Nai, Binh Duong and Kuang Nam - Danang, Binh Dinh, and Binh Duong. The remaining 30% are concentrated in Hanoi, Bak Nin, Phu Tho, Quang Nin and the Red River Delta. This concentration of enterprises directly affects the pricing of products within the country [4].

According to the available statistics, furniture production employs between 250,000 and 300,000 people in Vietnam. According to the results of the analysis of the qualitative composition of employees, 10% of employees have higher education; 45-50% of employees undergo regular training and attend all kinds of advanced training courses, and the remaining 35-40% are hired workers, who are usually hired to perform specific tasks for a certain period of time (seasonal workers). Despite the fact that the number of workers in the woodworking industry is very large, most workers are not properly trained and work unprofessionally. In addition, the ineffective division of labour and unprofessional administrative management affect not only labour productivity and, as a consequence, the financial performance of the enterprise, but also the quality of the products. As a consequence, employees with both theoretical and practical knowledge are in great demand at wood-processing enterprises, and the issue of finding highly qualified personnel is quickly resolved [5-7].

One of the advantages of Vietnam is the numerous young work force. By their nature of production, electronic, shoe, textile, wood processing and other sectors of light industry use a large amount of labour. According to studies by demographic experts, Vietnam is in a period of "golden population." The structure of the “golden population” of Vietnam is being formed in the period from 2010 to 2040 with an accuracy of 90% (10% error), that is, its beginning was in 2009-2011, and the end will be in 2038-2042. According to the UN, in 2015 the population of Vietnam of the working age reached 65.9 million people [3] (table 1).
Table 1. Forecast of the age structure of the population of Vietnam in the period from 2010 to 2050, million people.

| Age Group               | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Children (0-14 years old)| 26.3 | 25   | 23.4 | 21.9 | 20.4 | 19.2 | 18.3 | 17.7 | 17.2 |
| Working age (15-59 years)| 65.8 | 65.9 | 65.6 | 64.7 | 63.8 | 62.5 | 60.9 | 59.0 | 56.7 |
| Elderly (60+ years)     | 7.9  | 9.1  | 11.0 | 13.4 | 15.8 | 18.3 | 20.8 | 23.3 | 26.1 |

One of the reasons for choosing Vietnam as a place for investors to place their production is the profitability of doing business, primarily in terms of labour costs. The average monthly base salary of workers at an industrial enterprise in Vietnam in 2019 was 210 USD, which is much lower than in Thailand (about 350 USD), Indonesia (about 300 USD), and China (430 USD). According to Mercer Human Resource Consulting, in 2017 Hanoi (Vietnam) was a city with a fairly low cost of living, ranking 100th among 209 qualified cities in the world. The above data suggest high profitability of doing business in Vietnam.

3. Results and Discussion

The main products of the woodworking industry in Vietnam are plywood, boards, furniture, lumber, pellets, and wood chips. Products of the woodworking industry are mainly exported (80%), and the domestic market consumes only 20% of manufactured products. The production of furniture, plywood and boards is growing steadily. The main reason is that the demand for furniture in the domestic and foreign markets is growing rapidly, which is why Vietnamese woodworking enterprises focus on furniture production in order to increase revenue and profits of enterprises. However, the Vietnamese woodworking industry is demonstrating a stable production of basic products, and the growth trend remains at many positions [8].

The technology used in domestic wood production in Vietnam remains underdeveloped; most domestic wood processing enterprises are small, low-tech, with outdated equipment; as a result of this the products are of very low quality and are used exclusively within the country:

- Companies producing panels (MDF, plywood) mainly use processing technologies developed by EU countries.
- Sawmill enterprises mainly use technology from Taiwan and China.
- Enterprises engaged in production of wooden objects of fine art mainly use traditional tools and methods such as hand cutting, chiselling and wood carving.

Almost all materials for wood processing and refinement, such as paint, glue and so on are mainly imported from China and the EU countries.

Most domestic enterprises that operate without attracting foreign investment do not have free monetary resources to upgrade equipment and improve technology so that to make major improvements to meet the growing needs of the market.

Despite a fairly large number of enterprises engaged in woodworking, there are no established brands of Vietnamese wood products. Therefore, domestic manufacturers in Vietnam are passive in the market and ineffective in competition. Most wood products exported from Vietnam are marked with the names of foreign companies. From the above it follows that the Vietnamese companies have not created their own brands in the market [4, 9, 10].

4. Conclusions

For the development of the wood processing industry and the efficient operation of enterprises, the following comments and suggestions should be taken into account:

1) Prime Minister Nguyen Xuan Fook, chairing the conference “Orientation and Solutions for the Rapid and Sustainable Development of the Timber and Forest Products Export Sector” in Ho Chi Minh, set specific goals for the forest industry; namely, to increase export turnover. By 2025, the total value of exports should be 20 billion USD, which is 15 billion higher than the plan of the Ministry of Agriculture and Rural Development.
2) Strive to create a specific brand for wood-based products made in Vietnam. "Made in Vietnam" wood products will gain access to the EU market, as well as to new markets such as Canada and Mexico, with preferential tax rates compared to competitors. With the verified quality of manufactured products, this preferential tax rate will help Vietnam's wood processing industry get more orders.

3) Create industrial clusters. The enterprises of the wood processing industry in Vietnam are characterized by their specific product profile and weak cooperation among themselves because of their affiliation. In order to avoid such development, the creation of industrial clusters has long been practiced in many countries. In essence, a cluster is a group of suppliers of component products and specialized services, infrastructure, research institutes, educational institutions and other related organizations (companies, corporations, banks and others) concentrated in a certain territory, complementing each other, and enhancing the competitive advantages of individual companies and the cluster as a whole. A cluster has the properties of mutual competition and cooperation of its participants, and the formation of exclusive competencies of the region. They are also one of the forms of interaction between organizations within a joint value chain, creating the opportunity to benefit from the distribution of costs for maintaining and developing resources shared by several companies.

4) Create centres of vocational and advanced training for workers. Strengthening cooperation and relations between educational institutions and enterprises, training with the use of labour to improve the skills of workers and specialists to meet the needs of the enterprise.

5) Stimulate enterprises to upgrade machinery and equipment, as well introduce advanced technologies in order to increase labour productivity and product quality, in order to increase turnover and increase the business efficiency of enterprises in Vietnam.

References
[1] Bespalova V, Polyanskaya O, Shaitarova O, Gedio V and Tereshenko S 2019 Sustainable forest management is one of Russia’s economic problems. IOP Conf. Ser.: Earth Environ. Sci 316 012086 DOI:10.1088/1755-1315/316/1/012086
[2] Chan Thi T T and Chan Thi H I 2018 Development of Vietnamese wood processing enterprises in the VPTPP agreement (CPTPP). Innovation and Investment 8 pp 108–112
[3] Chan T B, Dao T B and Barysheva G A 2019 Electronic industry in the economy of Vietnam: investment recovery and problems of further development. Economics and Innovation Management 3 pp 32 – 48
[4] Chan Thi T T and Tereshchenko S V 2018 The state of the wood industry in Vietnam. FES: Finance. Economics. 15 pp 5–11
[5] Vukovic N, Pobedinsky V, Mityagin S, Drozhzhin A and Mingaleva Z 2019 A study on green economy indicators and modeling: Russian context. Sustainability 11 4629
[6] Kadyrova O V and Bespalova V V 2016 Approaches toward formulation a strategy of innovative development of an enterprise. Modern Management: Problems and Prospects pp 133–135
[7] Litvinenko I L, Klochko E N, Zelinskaya M V, Polyanskaya O A and Martynenko N K 2018 Features of managing innovative clusters of modern Russia. Espacios 39 p 23
[8] Le Van Than and Dikaya Z A 2008 Analysis and assesment of the state of the innovation potential of industrial enterprises (using the furniture industry as an example). Scientific and Technical news of SPbSPU 6
[9] Panyutin A N 2017 Ways to improve the efficiency of the forest sector in a market economy. Science of Krasnoyarsk 6 pp 249–253
[10] Shaitarova O E, Bespalova V V and Polyanskaya O A 2019 Survey of the conjuncture of the world furniture market. Proc. IV Sci. And Tech. Conf. onForests of Russia: Politics, Industry, Science pp 32 – 34