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HIỆP ĐỊNH THƯƠNG MẠI TỰ DO VIỆT NAM-EU (EVFTA) CÙNG CƠ HỘI VÀ THÁCH THỨC CHO NGÀNH XUẤT KHẨU MÁY TÍNH VÀ LINH KIỆN ĐIỆN TỬ VIỆT NAM

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Tóm tắt

Hiệp định Thương mại Tự do Việt Nam - Liên minh Châu Âu (EVFTA) có hiệu lực từ tháng 8 năm 2020 đã đánh dấu một cột mốc quan trọng trong quan hệ thương mại của Việt Nam với Liên minh Châu Âu. Ngành máy tính và linh kiện điện tử, luôn là một trong những mặt hàng được xuất khẩu nhiều nhất từ Việt Nam sang EU, dự kiến sẽ tiếp tục được hưởng lợi từ việc thực thi EVFTA. Báo cáo sử dụng cách tiếp cận định tính để cung cấp cái nhìn tổng quan về EVFTA và các điều khoản của hiệp định, tổng quan tình hình xuất khẩu máy tính và linh kiện điện tử của Việt Nam hiện nay. Qua đó, tác giả phân tích các cơ hội và thách thức mà hiệp định mang lại, dự đoán một số xu hướng xuất khẩu và cung cấp một số đề xuất giúp các các cơ quan chính phủ và doanh nghiệp đối phó với những thách thức còn tồn tại.

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Từ khóa: EVFTA, EU, Việt Nam, Hiệp định thương mại tự do, xuất khẩu, Máy tính, Linh kiện điện tử, Cơ hội, Thách thức.

EUROPEAN UNION–VIETNAM FREE TRADE AGREEMENT (EVFTA): OPPORTUNITIES AND CHALLENGES FOR VIETNAM'S EXPORT OF COMPUTERS AND ELECTRONIC COMPONENTS

Abstract

The European Union-Vietnam Free Trade Agreement (EVFTA) came into effect in August 2020 and marked a significant milestone for Vietnam's trade relationship with the European Union. The Computer and electronic components industry, consistently one of the most exported commodities from Vietnam to the EU, is expected to further benefit from the implementation of EVFTA. This paper employs a qualitative approach to provide an overview of EVFTA and its provisions, Vietnam's current computers and electronic components export. The authors then analyze the opportunities and challenges presented by the agreement, provide an outline of expected export trends, and equip stakeholders with actionable knowledge for overcoming the existing challenges.

Keywords: EVFTA, EU, Vietnam, Free Trade Agreement, Export, Computers, Electronic Components, Trade Relations, Opportunities, Challenges.

Introduction

Vietnam is an agro-industrial state with a rapidly growing economy. The country has transformed from one of the poorest in the world into a lower middle-income country (Vietnam Briefing, 2024). Exports, which mainly include crude oil, seafood, rice, shoes, wooden products, machinery, electronics, coffee, and clothing, have been one of the major forces in boosting national GDP growth. In 2022 alone, exports contributed about 19% to Vietnam's GDP. The electronics industry, in particular, plays a significant role in the country's economy, as the annual export turnover consistently ranked second out of all commodity groups for many years. In the first eleven months of 2023, Vietnam exported 10,039,265 thousand dollars worth of electronic devices, computers, and computer parts. (Tổng Cục Thống kê, 2024)

Free Trade Agreements, and the Vietnam-EU Free Trade Agreement (EVFTA) in particular, have been one of the key players in promoting the strong growth of Vietnam's export turnover. According to a study by the Ministry of Planning and Investment, if tariff and non-tariff commitments are fully implemented, combined with the impact from the US-China trade war and policy changes from other countries, Vietnam's economic growth will be improved in the short, medium, and long term. Specifically, the EVFTA is expected to help Vietnam's GDP increase from 2.18% to 3.25% (for the first five years), 4.57-5.30% (for the next five years), and 7.07-7.72% for the third five years. (Vietnam Credit, 2020)

This study aims to understand the opportunities and challenges of the EVFTA for Vietnam's economy, particularly its export sector. The study investigates Vietnam's export of computers and electronic components in particular, and identifies strategies for maximizing the benefits and mitigating the challenges for this industry associated with this agreement.

This paper can contribute to the understanding of the effects of free trade agreements on the economies of developing countries, particularly in the context of the global electronics industry. The findings of this paper could provide valuable insights for policymakers, business leaders, and researchers interested in international trade, economic development, and the global electronics industry. Furthermore, the study could help Vietnam's government and businesses to better navigate the opportunities and challenges presented by the EVFTA, thereby enhancing the country's economic growth and development. This research could also serve as a reference for other countries that are negotiating similar agreements with the EU or other major economies.

1. EVFTA and its provisions

1.1. Overview of EVFTA: Vietnam-EU Free Trade Agreement

The EVFTA, also known as the EU-Vietnam Free Trade Agreement, is a new-generation FTA that has been established between Vietnam and the 27 member states of the European Union. Vietnam's level of commitment in this agreement, along with the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), is the highest it has ever been, as these two FTAs encompass the broadest range of commitments. The EVFTA comprises 17 Chapters, 2 Protocols, and some understandings (VCCI, 2016).

On December 1, 2015, EVFTA negotiations officially ended. On February 1, 2016, the two Parties announced the official document of EVFTA. On June 26, 2018, the two Parties agreed to separate EVFTA into two Agreements, one is the Free Trade Agreement (EVFTA), and the other is the Investment Protection Agreement (EVIPA); officially concluding the legal review process for the EVFTA. On June 30, 2019, the two Parties officially signed EVFTA and EVIPA. This Agreement has officially come into effect from August 1, 2020 (VCCI, 2016).

The EVFTA is an ambitious agreement. It is set to eliminate over 99% of customs duties. The EU duties on Vietnamese products will be eliminated over seven years. The tariff eliminations, along with non-tariff measures, are expected to stimulate trading and increase export values.

The European Union (EU) presently stands as the primary trading partner for Vietnam, while also ranking as the third largest export market. Over the course of the 2015 - 2021 period, Vietnam experienced an average export growth rate of 7.5%, resulting in an average proportion of 13.6% of the country's total exports (Kylie Nguyen, 2022) . Moreover, Vietnam held the position of the European Union's 16th trade-in-goods partner and, in 2022, emerged as the EU's most significant trading partner within the Association of Southeast Asian Nations (ASEAN). The total trade flows between Vietnam and the EU amounted to €64.2 billion in this year, according to the European Commission.

EVFTA Tariff commitments

Vietnam and the EU both implement a common import tariff on goods originating from the other party when they are imported into each other's territory. In essence, the tariff reductions outlined in the EVFTA can be categorized into four distinct groups:the group on elimination of import duties

immediately, the group to eliminate import tax according to the schedule, the group applying tariff rate quotas (TRQ), and the group of goods without commitments.

Upon the implementation of the Agreement, the EU will fulfill its commitment to import duties by eliminating 85.6% of tariff lines, which represents 70.3% of Vietnam's export turnover to the EU. Over the course of seven years, the EU will further remove import taxes on 99.2% of tariff lines, corresponding to 99.7% of our export turnover. Moreover, for the remaining of Vietnam's exports, the EU offers us a tariff rate quota (TRQ) with an import tariff in the quota of 0%. This represents the highest level of commitment bestowed upon us by a partner since the signing of the Free Trade Agreements (FTAs). This beneficial agreement carries particular significance as the EU remains one of Vietnam's top two export markets currently.

Vietnam's import tariff commitments entail the abolishment of import duties on 48.5% of tariff lines, which accounts for 64.5% of EU exports as soon as the Agreement takes effect. Subsequently, after a decade, this elimination will encompass 98.3% of tariff lines and 99.8% of EU exports, respectively. Approximately 1.7% of the remaining EU tariff lines will either adhere to an extended tariff elimination schedule or be subject to the TQR, in accordance with the commitments made under the WTO.

In EVFTA, Vietnam has reserved the right to impose export taxes on 526 tariff lines, including important products such as crude oil, coal (except coal for coking and coking coal). Pertaining to tariff lines characterized by relatively high current export tax rates, Vietnam has committed to implementing a ceiling export tax rate of 20% for a maximum period of 5 years, with the exception of manganese ore, which is subject to a maximum tax rate of 10%. In relation to other goods, Vietnam has made a commitment to eliminate export taxes within a prescribed timetable of up to 16 years.

EVFTA Non-tariff commitments

EVFTA includes various non-tariff commitments aimed at facilitating trade and removing barriers between the European Union (EU) and Vietnam.

- Technical barriers to trade (TBT):

+ *General Commitment on Technical Standards:*

● Before issuance of Technical Standards, the EU/Vietnam must ensure to: consider various management methods and impact assessment of regulations; refer to international standards; notify the other government about the intended regulations; create conditions for participation in draft consultations.

● During implementation, the EU/Vietnam must regularly review compatibility with international standards and consider equivalent technical standards of the other party.

+ *Commitment on Technical Standards Related to Product Labeling:* Specific TBT commitments on labeling or signs on goods, mandatory information on labels, additional labeling, language on the label, acceptance of non-fixed labels.

+ *Commitment on Conformity Assessment Procedures and Market Surveillance:*

● Conformity assessment procedures: Recognize that there are many ways to approve conformity assessment results; ensure reasonable fees for conformity assessment of imports.

● Market surveillance: Market surveillance ensures no conflict of interest between supervisory agencies and enterprises, between supervisory functions and conformity assessment functions.

- Rules of origin (ROO): In order to qualify for tariff reduction, goods must either (1) undergo full processing or (2) are formed from materials originating partially or entirely from the EU or Vietnam and are processed and manufactured in Vietnam or the EU. There are three basic criteria for origin in the EVFTA:

+ *Code Transfer of Commodity (CTC) Criterion:* This criterion requires the HS code of the final product to be different from the HS code of the non-originating materials.

+ *Value limit of non-originating materials (VL Criterion)*: This criterion limits the maximum ratio of non-originating materials in the production process.

+ *Specific Production Process Criterion*: This criterion requires non-originating materials to undergo a specific processing or manufacturing process in the country of origin.

- Other non-tariff measures: The Agreement also includes commitments towards reducing other tariff barriers (eg: commitments on export/import licensing, customs procedures ...) to facilitate import and export activities between the two Parties.

1.2. EVFTA provisions for Vietnam's export of computers and electronic components to the EU market

According to Ministry of Industry and Trade, import duties of 74% of tariff lines for computers and electronic components will be eliminated as soon as the Agreement comes into force. Import duties of the remaining products will be eliminated according to a schedule of 3-5 years.

Besides, computers and electronic components fall under specific Harmonized System (HS) codes, which are used for international trade classification. They are automatic data processing machines; portable; weighing not more than 10kg; consisting of at least a central processing unit; a keyboard and a display which their six-digit Harmonized Code is **8471.30**. The tariff code, also called product code, provides information on the duty rates and other levies that apply to the product any applicable protective measures (e.g. anti-dumping), import and export formalities and other non-tariff requirements (health certificates, quality controls, CE marking, etc.)

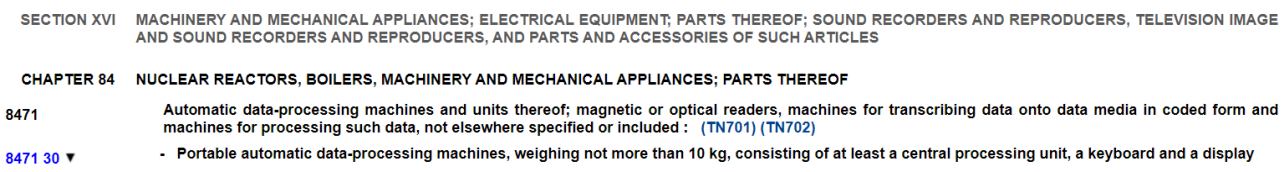

Figure 1: TARIC Measure information of goods coded 8471.30

Source: ec.europa.eu/taxation_customs/dds2/taric/measures

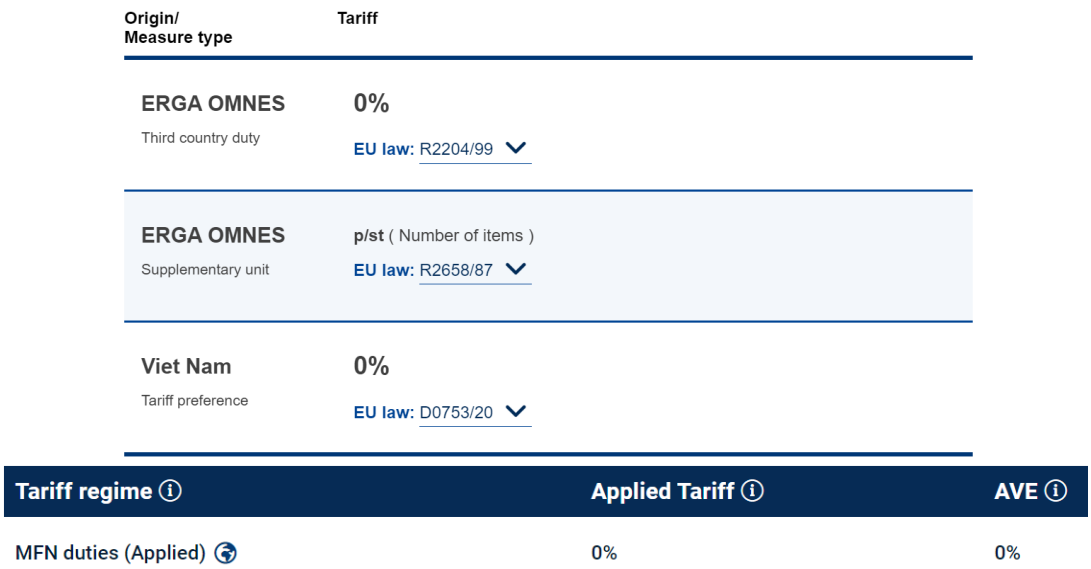

Figure 2: Tariff applied to products coded 8471.30 from Vietnam to EU countries

Source: trade.ec.europa.eu & ITC (Market Access Map)

As of 2024, third country duty = 0% means that the EU has decided not to impose any import duty or tariff on computers and electronic components when they are exported from Vietnam. As a result, those goods can enter the EU market with a tariff rate of zero.

The 0% tariff preference is a form of preferential treatment granted under the EVFTA. This trade agreement aims to promote economic cooperation and facilitate the exchange of goods between Vietnam and the EU by eliminating or reducing tariffs on eligible products. For Vietnamese exporters, the 0% tariff preference serves as a significant incentive. It allows them to offer computers and electronic components in the EU market at a competitive price compared to goods from countries without similar trade agreements.

Thus, Vietnam is likely to be the major beneficiary of the agreement as the liberalization of tariff barriers will benefit key export industries, including the manufacturing of computers and electronic products. These industries are also labor-intensive. By enhancing Vietnam's export volume to the EU, the FTA will further stimulate the growth of these industries regarding capital and employment.

The EVFTA should be a fantastic opportunity for both nations as a reduction of up to approximately 100% on tariffs is an opportunity to increase sales and produce more lucrative electronics products in Vietnam. Although Vietnam currently lacks a well-developed electronics manufacturing industry, the EVFTA presents an unprecedented opportunity for Vietnam to become a leader in electronics products. Therefore, it would be a strategic move for local businesses to expand this emerging industry.

The trade and investment agreements between the EU and Vietnam will create the momentum to further enhance the already strong trade and investment connections between the two parties. This positive trend is expected to continue due to the implementation of key trade agreements, strong

demographic tailwinds, and supportive government policies, thereby offering a range of opportunities for investors (Nguyen, 2023). In the forthcoming time, the new-generation FTA will play a significant role in driving Vietnam's exports.

2. Current situation of Vietnam's computers and electronic components export to the EU

2.1. Prior to EVFTA implementation

Table 1: Vietnam's computers and electronic components export revenue to EU, 2012 - 2019.

	2012	2013	2014	2015	2016	2017	2018	2019
Export revenue (thousand USD)	1,519,731	2,199,714	2,334,099	2,788,206	3,377,329	4,097,563	4,985,351	4,660,433
% of export revenue to EU	7.49%	9.04%	8.36%	8.97%	9.93%	10.69%	11.88%	11.22%
% of Vietnam's computers & electronic components export	19.39%	20.75%	20.41%	17.81%	17.81%	15.80%	17.00%	12.97%
% growth		44.74%	6.11%	19.46%	21.13%	21.33%	21.67%	-6.52%

Source: Vietnam's General Statistics Office, author's calculation

In general, Vietnam witnessed a constant growth in its computers and electronic components exports to the EU, even prior to the introduction of EVFTA. Export revenue increased twofold (to 3.4 billion USD) after four years and threefold (to 4.7 billion USD) after seven years. Despite a decrease of 6.5% in 2019, the country managed to retain an average growth rate of 18.27% in its export of this commodity group to the EU.

The year 2018, in particular, saw a robust growth of 21.67%. The export figure reached 4.9 billion USD, representing 11.88% of Vietnam's overall export turnover from the EU. This made computers and electronic components Vietnam's second most exported product category to the EU market, just after mobile phones and components .

Fourteen EU nations were trade partners with Vietnam for this period. Netherlands, Slovakia and Germany were the three major markets prior to EVFTA's implementation, as the three combined

accounted for almost 63% of total export revenues in July 2018 (Figure 3). Noticeably, prior to Brexit, export to the UK also contributed to the overall figure, constituting a moderate 4% of the total 471.14 million USD from the sale of computers and electronic components to the EU in this period.

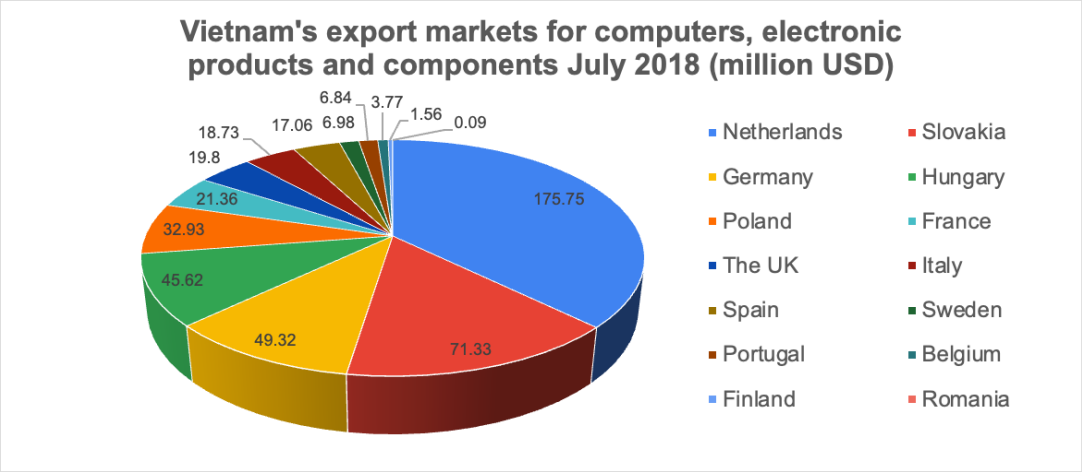

Figure 3: Vietnam's export structure of computers and electronic components to EU, July 2018

Source: vsi.gov.vn

In addition, a highly diverse range of product categories, according to VIA Vietnam, were purchased by EU consumers; ranging from minor components like semiconductors, circuit board, resistors, etc to finished products like computer devices, television, audio equipment, desktop, etc. (Vietnam Industry Agency, 2018)

2.2. After EVFTA implementation

Despite the impact of COVID-19 pandemic, which led to considerable disruptions in business operations and international trade, computers and electronic components were among the few industries to witness a positive growth rate in export revenue. After EVFTA took effect in 2020, this industry further consolidated its significance, accounting for 16,41% of total export revenue to the EU and secured its second position in this market. Average growth rate up to 2022, however, has slightly slowed down to 12.01% compared to the pre-EVFTA period, which can be attributable to the impacts of Covid-19 pandemic.

Table 2: Vietnam's computers and electronic components export revenue to EU, 2019 - 2023

	2019	**2020**	**2021**	**2022**	**2023**
Export revenue (thousand USD)	4,660,433	5,767,906	5,917,243	6,351,262	5,526,980
% of total export revenue to EU	11.22%	16.41%	14.75%	13.56%	12.65%
% of Vietnam's	12.97%	12.94%	11.64%	11.44%	9.64%

	2019	2020	2021	2022	2023
total computer & components export					
% growth		23.76%	2.59%	7.33%	-12.98%

Source: Vietnam's General Statistics Office, author's calculations.

Vietnam and the EU consented that 74% of tariff lines for computers and electronic components were eliminated as soon as the agreement came into force in 2020. Electronics manufacturers in Vietnam have taken good advantage of the immediate tariff reduction to boost exports, as revenue surged by 23.76% to 5.77 billion USD shortly after EVFTA took effect. Exports of this commodity group to the EU represented 16.41% of Vietnam's total export revenue from this market, marking the highest share since 2012.

Growth rate slowed down in 2021. In the third quarter of 2021, due to the impact of the Covid-19 epidemic in Vietnam, some production industries were interrupted, especially in 19 southern provinces - key export economic regions, disrupting circulation of goods and raw materials. Domestic materials production was fundamentally affected, and thus, so was the trade between Vietnam and European countries. However, the fourth quarter of 2021 recorded a strong recovery due to increased consumer demand as Covid-19 restrictions were gradually lifted. A recovery in international trade in the fourth quarter of 2021 has helped Vietnam maintain a positive growth rate in this export sector. (Ministry of Industry and Trade, 2022).

In 2022, the further reduction in tariffs provided further opportunities for export expansion. Exports of electronics, computers and components saw further increases, though the growth rate has slowed down compared to 2020. In addition, Foreign Direct Investment (FDI) is a key contributor to Vietnam's annual export revenue for this period, accounting for 80 - 100% of the total investment capital of the electronics industry. The Vietnamese electronics industry attracts abundant international investment in the form of FDI. Foreign electronics manufacturers have effectively deployed the Rule of origin (ROO) under EVFTA and choose to export from Vietnam. As discussed above, this rule requires that inputs have to undergo a certain amount of processing within the Vietnamese border to qualify for tariff reduction. These electronics corporations, therefore, have established manufacturing facilities in Vietnam to enjoy the EVFTA tariff incentives.

FDI has not only boosted the export revenue of this commodity group, but has also diversified the product offerings to accommodate the diverse export market demands. (Ministry of Industry and Trade, 2023)

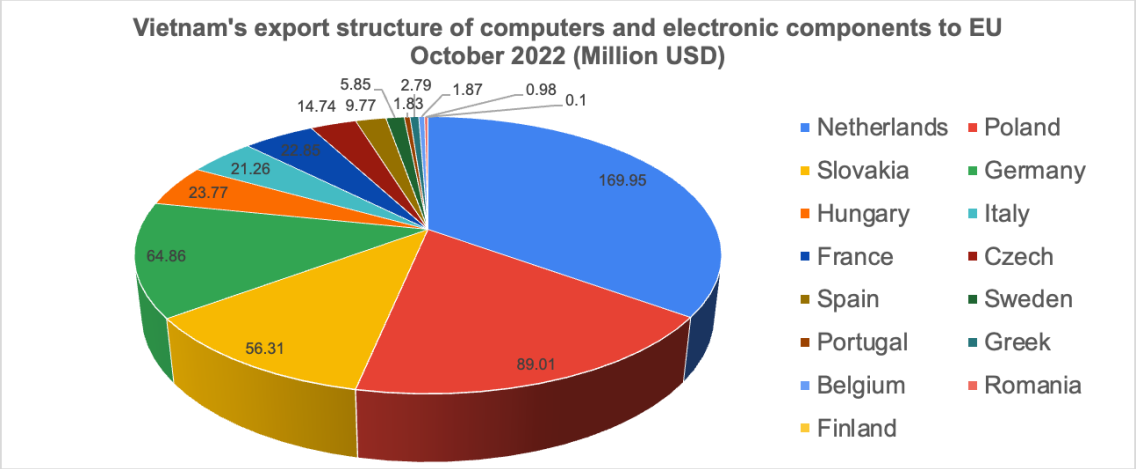

Figure 4: Vietnam's export structure of computers and electronic components to EU, October 2022.

Source: vsi.gov.vn

Major importers after the agreement remained Western and Eastern Europe countries after four years. The Netherlands continued to be the largest importer of this product category with 169,95 million USD worth of export revenue in October 2022. This country further expanded its trade, constituting a whopping 35%. Slovakia and Germany continued to be major consumers; both, however, were overtaken by Poland which became the second largest importer and purchased 89 million USD worth of computers and electronics. It is also noteworthy that Vietnam expanded its market and welcomed two more consumers of these products, which were Czech and Greek, after the introduction of EVFTA.

Electronics trade with the EU has proliferated not just in terms of export turnover, number of trading parties, but also the variety of export categories. In October 2022 alone, a total of 23 product categories were purchased by EU consumers. Screens of all kinds and printing machines were major sources of revenue for Vietnam, contributing 255.95 million USD. Sales of laptops and tablets also became one of the most purchased categories by EU consumers and represented 15.66% with a revenue of 78.7 million USD. Meanwhile, components such as circuit boards, transceivers, amplifiers, etc constituted much smaller shares of export revenues. This indicates that EU consumers are having a greater tendency to purchase finished products over electronic components (Vietnam Industry Agency, 2022).

Table 3: Export revenues from EU by types of computers and electronic components, October 2022

Types of products	**Export Revenue October 2022** ***(million USD)***	**Percentage of total revenue (%)**
Screens of all kinds	160.16	31.87
Printers, photocopiers and accessories	95.79	19.06

Types of products	Export Revenue October 2022 *(million USD)*	Percentage of total revenue (%)
Laptops, tablets	78.7	15.66
Storage device	51.13	10.17
Microprocessor	42.09	8.37
Audio equipments	23.9	4.76
Scanners	16.71	3.32
Cards of all types and components	6.79	1.35
Signal conversion equipment	6.47	1.29
Diode - semiconductor	5.7	1.13
Computer drive	4.11	0.82
Circuit board	2.61	0.52
Circuits of all kinds	2.5	0.50
Transceiver	1.52	0.30
Computer mouse	1.16	0.23
Amplifier	0.93	0.19
Integrated circuits	0.57	0.11
Microphones	0.46	0.09
Capacitors of all kinds	0.45	0.09
Music player	0.3	0.06
Cameras and accessories	0.27	0.05
Television	0.18	0.04
Desktop	0.12	0.02
Total: 23	**502.62**	**100**

Source: vsi.gov.vn

Up to 2022, Vietnam has taken good advantage of EVFTA, especially the provisions for tariff reduction, and successfully expanded trade in computers and electronics with the EU. Given the

provisions for Rule of Origin (ROO), Vietnam has also allowed foreign-invested manufacturers to contribute a significant portion to electronics exports. Vietnam has also maintained a good trade relationship with major EU importers, The Netherlands and Germany; while increasingly taking good advantage of Foreign Direct Investment for the development of the electronics sector.

With 100% of tariff lines removed in 2023, further opportunities in expanding electronics exports to the EU could be expected. However, the global economic downturn, exacerbated by the prolonged influence of COVID-19 and the Russia-Ukraine conflict, significantly impacted international trade. Following the slow down in trade from the end of 2022, Vietnam's exports and imports in 2023 decreased sharply. This is the first time in many years that Vietnam's export and import turnover has witnessed such a downturn, one which was even greater than the decrease during the early COVID-19 period. This probably explains the 12.98% decline in computers and electronics export revenues to the EU. (VCCI, 2023a)

Prospects, however, remain positive for this sector in the foreseeable future. Tariff lines under EVFTA are growing towards total elimination after three years of implementation. Computer and electronics still ranked as the second most exported product category in 2023; and further FDI in this sector can be expected as Vietnam is on its way to become one of the "Electronic Workshops of the World". (Vietnam Industry Agency, 2023)

3. Opportunities and Challenges for Vietnam's export of computers and electronic components to the EU market under EVFTA

3.1. Opportunities

Given the current export situation and the implementation of EVFTA, Vietnam has ample opportunity to further expand electronics trade and capture more revenue from the EU.

The EVFTA will eliminate nearly 99% of tariff lines and trade barriers between Vietnam and the EU over a period of 10 years. This is a significant advantage for Vietnam compared to some competitors such as Thailand and China. The reduction in tariffs makes Vietnamese products more price competitive, which could lead to an increase in demand from the EU market.

The EU has always been a major importer, with purchasing power ranked second in the world and the key market for Vietnamese exports. With the EVFTA, Vietnamese companies have the opportunity to tap into this large and lucrative market. The EVFTA is anticipated to boost Vietnam's exports to the EU by 42.7% in 2025 and 44.37% in 2030, relative to a scenario without the agreement (Trang, 2022). This increase in exports could lead to higher revenues for Vietnamese companies and contribute to the growth of the country's economy. Furthermore, given that after three years of implementation, the tariff for export of computers and electronics to the EU has been completely eliminated, which further alleviates the financial burden for electronics exporters in Vietnam.

Vietnam's electronics industry attracts ample investment opportunities from international stakeholders. Many major electronic companies in the world have recently invested in building

production facilities in the form of FDI for technological electronic products in Vietnam such as Samsung, LG, Foxconn, Fukang Technology, LG Display, etc, with export markets in the EU. Many regions throughout Vietnam, including Dong Nai, Binh Duong, HCM City, Long An, etc have Industrial Parks for the establishment of more production facilities.

The EVFTA offers significant opportunities for Vietnamese companies to enhance their exports to the EU, given that the 27-member union, with a total population exceeding 500 million, has a substantial import demand (VNA, 2022). Vietnamese businesses are gradually becoming familiar with the commitments under the EVFTA, which could lead to increased market access.

3.2. Challenges

The elimination of tariffs also means that Vietnam will face fierce competition from other EU trading partners (Nguyen, 2023) as these countries also have free trade agreements or specific tax commitments with the EU. In 2022, almost half of the EU's high-tech imports from non-EU countries came from China (38%), the US (19%) and other top partners being Switzerland, Taiwan and the UK. Among which, China proves a strong competitor. The EU consistently has a high demand for electrical and electronics appliances from China, as this country has dominance in electronics manufacturing not only due to cheap labor; but also strategic planning, skilled workforce and supply chain advantages. The tariff rates for these products are also remarkably low for exporters from China (currently 0% for electronics HS code 8471300000). Vietnamese companies will need to enhance their competitiveness not only in terms of price but also in terms of innovation.

Vietnam’s products, including computers and electronic components, must meet the EU’s strict quality standards and regulations (Bich Ngoc & Binh, 2019). This includes compliance with environmental and labor standards, which can be challenging for Vietnamese companies. Failure to meet these standards could result in barriers to market access.

Vietnam’s electronics industry relies heavily on imported components (Trang, 2022). This could be a challenge if there are disruptions in the supply chain, such as those caused by global events or trade disputes. Moreover, the dependence on imports also means that Vietnam’s electronics industry is vulnerable to fluctuations in global commodity prices.

Even with the impressive figures for total production and export earnings, a number of problems remain. These include a low level of value creation, an irregular framework, and an absence of consolidated governmental oversight (Bich Ngoc & Binh, 2019). Low added value could be a result of the fact that electronic products on the Vietnamese market are mostly imported finished products or assembled domestically using mostly imported components. Domestic electronics enterprises have participated in the industry's value chain, but most provide products with low technology content and low value (VCCI, 2023b). Inconsistent structure might refer to the instability or lack of coherence in the types of goods produced or exported, possibly due to changing market demands or lack of strategic planning in the industry. Lack of unified government control, or a single, centralized authority overseeing and regulating the industry could lead to inefficiencies, miscommunication, or lack of standardization. These

issues require specific analysis and relevant solutions, which would involve a thorough understanding of the industry, market trends, and effective policy-making.

Additionally, the quality of skilled human resources in Vietnam's supporting industry, which includes the electronics manufacturing industry, is lower than in other developed countries (Ministry of Industry and Trade, 2023). Training in manufacturing engineering at universities and colleges is insufficient compared to other fields. Many domestic enterprises have failed to integrate their human resource development strategies with higher education institutions, leading to a scarcity of highly skilled personnel. In addition, the current workforce demonstrates a deficiency in experience and innovation, particularly in the utilization of emerging technologies.

Thus, while the EVFTA presents significant opportunities for Vietnam's export of computers and electronic components to the EU market, it also brings about challenges that need to be addressed. It remains crucial for Vietnam to enhance its competitiveness, ensure the quality of its products, and reduce its dependence on imports to fully reap the benefits of this agreement.

3.3. Expected trends for the coming years

The digital economy is expected to play a significant role in the future of Vietnam's export industry (VCCI, 2024). As technology continues to evolve, businesses are likely to leverage digital platforms for marketing, sales, and customer service. This could potentially lead to an increase in the export of computers and electronic components as businesses adapt to the digital age.

With the EU's emphasis on environmental sustainability, there is a growing trend towards the development of a green and circular economy (European Environment Agency, 2023). This involves reducing waste and making the most of resources. For Vietnam's computer and electronic components industry, this could mean adopting more sustainable manufacturing practices and developing electronic products that are designed to be reused or recycled.

With further involvement and support from the government, Vietnam's electronics industry could see a higher internalization rate. If the Government pays attention to investment and considers preferential support for businesses in the stages of research, product trial production and trade promotion programs, review and improve legal policies, especially specific regulations on goods originating in Vietnam, then the national electronics sector can become less dependent on FDI.

Strengthening supply chains is another important trend. By building strong relationships with suppliers and improving logistics and distribution networks, Vietnamese companies can ensure a steady supply of components and deliver their products to the EU market more efficiently.

While the EU is a significant market for Vietnam's exports, diversifying into other markets can serve to alleviate potential risks and exploit new prospects. This could involve exploring markets in other regions or focusing on niche sectors within the EU market.

4. Recommendations

Based on the previous assessments, it is clear that, while computer and electronic component export demand is increasing not only globally but also in EU member countries, there are some challenges that prevent these products from being exported under the EVFTA. As a result, both the government and enterprises in this sector should consider this and improve by establishing well-thought-out policies.

4.1. For Vietnamese authorities

Firstly, to ensure product quality, the government should emphasize boosting access to contemporary technologies. By launching technology-sharing initiatives in partnership with academic institutes, industry leaders, international enterprises, these initiatives will access cutting-edge manufacturing technology and machinery. Moreover, authorities should provide procedures and incentives to encourage knowledge sharing among foreign-invested corporations, domestic firms, and local small and medium-sized enterprises (SMEs) as a way of transferring technology. This can be accomplished through partnerships, joint ventures, technology licensing agreements, and technology transfer initiatives.

Secondly, to reduce dependency on imports while increasing value added, the government should conduct local research and development of raw materials, allowing for direct production of computer and electronic components. The government can help with this action by providing training programs, financial incentives, and establishing technological parks and innovation centers. They can also put in place support programs to improve technical capability, sponsor research, collaborate, and transfer technology (VCCI, 2023b).

Thirdly, it is necessary to strengthen and standardize state control over the electronics sector, especially computer and electronic components. However, the authorities should transfer the management to the Ministry of Industry and Trade (MOIT) when the Ministry of Information and Communication (MIC) did ineffectively in this sector. The MOIT should assume the responsibilities of government oversight in industrial production and commercial management (Bich Ngoc & Binh, 2019).

Fourthly, to enhance the skilled workforce, the government should implement measures to attract participation from public and private educational organizations, research centers, institutes, and enterprises in workforce training across all sectors of the economy. This can be achieved by expanding cooperation through "public-private partnerships." (Bich Ngoc & Binh, 2019). Additionally, as the educational system undergoes restructuring, the Ministry of Education and Training should mix vocational education and practices at all levels of the educational system to enhance necessary skills for students.

Lastly, to stimulate growth in the electronics industry, the Vietnamese government should actively promote investments from various enterprises, including domestic firms, foreign-invested companies, and multinational organizations. This can be achieved by facilitating joint ventures between local businesses and international partners, creating a robust supply chain resilient to global challenges.

Furthermore, by luring capable foreign enterprises, particularly multinational corporations (MNCs), they will contribute current technology and knowledge to the industry, boosting its capacities. The government should prioritize targeted and extensive foreign direct investment (FDI) while empowering Vietnamese enterprises to lead the supply chain.

4.2. For businesses in Vietnam

Firstly, to thrive in the competitive market, enterprises specialized in manufacturing computer and electronic components should prioritize building relationships with existing customers while simultaneously expanding their market reach in the EU. This includes focusing on countries like the Netherlands, Poland, Slovakia, and Germany, which generate large revenue among the EU members. Moreover, businesses should participate in product promotion, global fairs, and trade promotions with other countries that have signed the EVFTA. This action assists firms in promoting their products and brands, understanding customer needs and preferences, businesses can modify their products or add new features to meet evolving demands.

Secondly, to fully leverage the opportunities brought by EVFTA, businesses need to follow sustainable manufacturing practices and stay informed about the requirements through government and specialists. With computer and electronic components, manufacturers should adapt the environmentally friendly aspect into their products as eco-friendly packages to avoid pollutants after discharging. When businesses proactively understand and adapt to provisions given under EVFTA, they can maximize their benefits, become more competitive and avoid obstacles.

Thirdly, to fulfill rising customer demand in the EU, enterprises should increase investments in applying science and technology not just in manufacturing processes but also in export activities. By integrating intelligent manufacturing practices such as IoT and data analytics, organizations may improve product efficiency and effectiveness, automate and streamline production processes, generate economies of scale, and offer competitive pricing.

Fourthly, to enhance the quality of human resources, businesses should specialize in technical training programs, workshops, and partnerships with larger enterprises to facilitate knowledge sharing and technology transfer. Moreover, businesses can invest in educational institutions to recruit talented students majoring in the electronic sector by granting scholarships to go abroad and learn from developed countries. By implementing those, businesses can strengthen their manufacturing and processing, reduce reliance and position themselves competitively in the global market.

Lastly, to improve efficient supply chains in delivering products to the EU market, businesses should optimize logistics management, especially in distribution aspects by investing in advanced logistics technologies, as well as real-time tracking, warehouse management, inventory management systems enhancing visibility, reducing transit times, and minimizing costs. Additionally, companies can work with reputable logistics partners who have a significant presence in the EU; these partners can assist firms in managing regulatory requirements and customs procedures.

5. Conclusion

The comprehensive new-generation agreement, the EU-Vietnam Free Trade Agreement (EVFTA), brings both potential benefits and hurdles for Vietnam's computer and electronic component exports. This pact, which abolishes most tariffs and lessens non-tariff barriers, paves new paths for Vietnam's crucial economic sector.

The trade in computers and electronics was already robust between the two parties even before the agreement. The trade volume saw an increase of over 13.7 times, escalating threefold from US$1.5 billion in 2012 to 4.7 billion USD in 2019. The EVFTA is projected to further enhance these figures, as evident in the healthy growth rate of export revenues in the period between 2020 and 2022.

Elimination of tariffs and trade barriers from EVFTA provides access to a large and lucrative market. The agreement is expected to significantly increase Vietnam's exports to the EU and foster economic growth. The influx of investment from foreign stakeholders who take advantage of ROO also present opportunities for further development. Nevertheless, it also introduces challenges like adhering to the EU's stringent standards and regulations, boosting the competitiveness of local firms, and managing the sector's social and environmental impacts. Looking ahead, trends such as the digital economy, sustainability, innovation, and supply chain optimization will shape the future of Vietnam's export industry, providing new prospects for growth and development. By implementing appropriate strategies, Vietnam can navigate the complexities of the global electronics market and emerge as a key player in the EU market.

To fully exploit the EVFTA and tackle these challenges, Vietnamese authorities should prioritize access to modern technologies, encourage local research to increase internalization rate, strengthen state control over the electronics sector, enhance the skilled workforce, and promote investments. Meanwhile, businesses are advised to strengthen existing customer relationships, upskill their labor force and increase value added. Collaboration between the government and businesses on technological advancements, workforce development, and supply chain optimization can help Vietnam better leverage the advantages of the EVFTA, surmount the challenges, and guarantee the sustainable and inclusive growth of the national export sector.

References

Bich Ngoc, T. T., & Binh, D. T. (2019). VIETNAM'S ELECTRONICS INDUSTRY: THE RISE AND PROBLEMS OF FURTHER DEVELOPMENT. *Humanities & Social Sciences Reviews*, *7*(4), 01–12. https://doi.org/10.18510/hssr.2019.741

European Environment Agency. (2023). *Sustainability*. https://www.eea.europa.eu/en/topics/at-a-glance/sustainability

Kylie Nguyen. (2022), "Import—Export turnover of goods between Vietnam and the EU increased by 14% over the same period last year.", Available at: https://www.agribank.com.vn/en/ve-agribank/tin-tuc/dtl?current=true&urile=wcm:path:/agbanken/ve-agribank/news/market-news/import-

export-turnover-of-goods-between-vietnam-and-the-eu-increased-by-14-over-the-same-period-last-year#:~:text=In%20the%20first%2010%20months,exports%20reached%20USD%2039.7%20billion.

Ministry of Industry and Trade. (2022a), *Báo cáo Xuất nhập khẩu Việt Nam 2021*.

Ministry of Industry and Trade. (2022b), *Báo cáo Xuất nhập khẩu Việt Nam 2022*.

Ministry of Industry and Trade. (2023), "Nâng cao chất lượng nhân lực ngành công nghiệp hỗ trợ.", Available at: https://moit.gov.vn/tin-tuc/phat-trien-nguon-nhan-luc/nang-cao-chat-luong-nhan-luc-nganh-cong-nghiep-ho-tro.html

Nguyen, T. (2023), "Vietnam's Electronics Industry: A Guide to Emerging Opportunities.", https://www.vietnam-briefing.com/news/vietnams-electronics-industry-guide-emerging-opportunties.html/

Tổng Cục Thống kê. (2013), "Trị giá xuất, nhập khẩu phân theo nước và vùng lãnh thổ chủ yếu sơ bộ các tháng năm 2012", Available at: https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2020/01/tri-gia-xuat-nhap-khau-phan-theo-nuoc-va-vung-lanh-tho-chu-yeu-so-bo-nam-2012/

Tổng Cục Thống kê. (2014), "Trị giá xuất, nhập khẩu phân theo nước và vùng lãnh thổ chủ yếu sơ bộ 12 tháng năm 2013", Available at:. https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2019/12/tri-gia-xuat-nhap-khau-phan-theo-nuoc-va-vung-lanh-tho-chu-yeu-so-bo-11-thang-nam-2014/

Tổng Cục Thống kê. (2015), "Trị giá xuất, nhập khẩu phân theo nước và vùng lãnh thổ chủ yếu sơ bộ các tháng năm 2014",Available at: https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2019/12/tri-gia-xuat-nhap-khau-phan-theo-nuoc-va-vung-lanh-tho-chu-yeu-so-bo-11-thang-nam-2014/

Tổng Cục Thống kê. (2016), "Trị giá xuất, nhập khẩu phân theo nước và vùng lãnh thổ chủ yếu sơ bộ các tháng năm 2015", Available at: https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2019/11/tri-gia-xuat-nhap-khau-phan-theo-nuoc-va-vung-lanh-tho-chu-yeu-so-bo-cac-thang-nam-2015/

Tổng Cục Thống kê. (2017), "Trị giá xuất, nhập khẩu phân theo nước và vùng lãnh thổ chủ yếu sơ bộ các tháng năm 2016", Available at: https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2019/11/tri-gia-xuat-nhap-khau-phan-theo-nuoc-va-vung-lanh-tho-chu-yeu-so-bo-cac-thang-nam-2016/

Tổng Cục Thống kê. (2018), "Số liệu xuất nhập khẩu các tháng năm 2017", Available at: https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2019/11/tri-gia-xuat-nhap-khau-phan-theo-nuoc-va-vung-lanh-tho-chu-yeu-so-bo-cac-thang-nam-2017/

Tổng Cục Thống kê. (2019), "Số liệu xuất nhập khẩu các tháng năm 2018", Available at: https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2019/11/tri-gia-xuat-nhap-khau-phan-theo-nuoc-va-vung-lanh-tho-chu-yeu-so-bo-cac-thang-nam-2018/

Tổng Cục Thống kê. (2020), "Số liệu xuất nhập khẩu các tháng năm 2019", Available at: https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2019/11/tri-gia-xuat-nhap-khau-phan-theo-nuoc-va-vung-lanh-tho-chu-yeu-so-bo-cac-thang-nam-2019/

Tổng Cục Thống kê. (2021), "Số liệu xuất nhập khẩu các tháng năm 2020", Available at:

https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2020/10/tri-gia-xuat-nhap-khau-phan-theo-nuoc-va-vung-lanh-tho-chu-yeu-so-bo-cac-thang-nam-2020-2/

Tổng Cục Thống kê. (2022), "Số liệu xuất nhập khẩu các tháng năm 2021" , Available at:https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2021/03/so-lieu-xuat-nhap-khau-cac-thang-nam-2021/

Tổng Cục Thống kê. (2023), "Số liệu xuất nhập khẩu các tháng năm 2022", Available at: http://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2022/03/so-lieu-xuat-nhap-khau-cac-thang-nam-2022/

Tổng Cục Thống kê. (2024), "Số liệu xuất nhập khẩu các tháng năm 2023", Available at: https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2023/03/so-lieu-xuat-nhap-khau-cac-thang-nam-2023/

Trang, N. T. L. (2022), "EVFTA—A Review of Opportunities and Challenges for Vietnam.", *Shifting Economic, Financial and Banking Paradigm*, Vol. 382, pp. 131–151.

VCCI. (2016), "Summary: Vietnam—EU Free Trade Agreement (EVFTA).", Available at: https://wtocenter.vn/file/18176/ttwto-tom-luoc-evfta-final--eng.pdf)

VCCI. (2023a), "Bức tranh Xuất nhập khẩu và Đầu tư nước ngoài của Việt Nam 6 tháng đầu năm 2023.", Available at: https://trungtamwto.vn/file/22593/1.-buc-tranh-xnk-6-thang-dau-nam-2023-.pdf

VCCI. (2023b), "Xuất khẩu máy tính và linh kiện điện tử chủ yếu thuộc về doanh nghiệp FDI.", Available at: https://trungtamwto.vn/tin-tuc/22880-xuat-khau-may-tinh-va-linh-kien-dien-tu-chu-yeu-thuoc-ve-doanh-nghiep-fdi

VCCI. (2024), "Đẩy mạnh xuất khẩu trong năm 2024 và những lưu ý khi xuất khẩu vào EU.", Available at: https://trungtamwto.vn/chuyen-de/25440-day-manh-xuat-khau-trong-nam-2024-va-nhung-luu-y-khi-xuat-khau-vao-eu

Vietnam Briefing. (2024), "Economic Indicators, FDI, and Trade Trends.", Available at:https://www.vietnam-briefing.com/doing-business-guide/vietnam/why-vietnam/economic-indicators-and-vietnam-s-gdp-fdi-and-trade-trends

Vietnam Credit. (2020), "FIVE MAJOR IMPACTS OF EVFTA ON VIETNAM'S ECONOMY.", Available at: https://vietnamcredit.com.vn/news/05-major-impacts-of-evfta-on-vietnams-economy_14024

Vietnam Industry Agency. (2018), "Xuất khẩu máy vi tính, sản phẩm điện tử và linh kiện 7 tháng 2018 đạt gần 16 tỷ USD.", Available at: https://vsi.gov.vn/vn/tin-cong-nghiep-ho-tro/xuat-khau-may-vi-tinh-san-pham-dien-tu-va-linh-kien-7-thang-2018-dat-gan-16-ty-usd-c3id944.html

Vietnam Industry Agency. (2022), "Xuất khẩu máy tính và linh kiện sang EU chiếm 11,65% tổng kim ngạch của cả nước.", Available at: https://vsi.gov.vn/vn/tin-cong-nghiep-ho-tro/xuat-khau-may-tinh-va-linh-kien-sang-eu-chiem-1165-tong-kim-ngach-cua-ca-nuoc-c3id2155

Vietnam Industry Agency. (2023), “Công nghiệp điện tử Việt Nam: Cơ hội và nhiều thách thức.”, Available at: https://vsi.gov.vn/vn/tin-cong-nghiep-ho-tro/cong-nghiep-dien-tu-viet-nam-co-hoi-va-nhieu-thach-thuc-c3id2293.html

VNA. (2022), “*EVFTA fuels Vietnam’s export to EU market*. “ Available at: https://en.vietnamplus.vn/evfta-fuels-vietnams-export-to-eu-market/237164.vnp