

Some Theoretical and Practical Issues on International Supply Chain Cooperation of Vietnamese Seafood Enterprises

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Abstract

International supply chain cooperation increasingly affirms the important role in the development of the supply chain and in the business activities of enterprises. With the aim of analyzing and evaluating the process of international supply chain cooperation of Vietnamese seafood enterprises, the article analyzes and evaluates the situation of international supply chain cooperation of Vietnamese seafood enterprises in recent years. Since then, the article has proposed a number of solutions for state management agencies, the Vietnam Association of Seafood Exporters and Producers (VASEP) and enterprises to improve the ability to cooperate in the international supply chain for Vietnamese seafood enterprises.

Keywords: Cooperation, supply chain, international, fisheries, Vietnam

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1. Introduction

In this day and age, the supply chain plays a very important role and affects the whole business cycle of the business. Due to the asymmetry between supply and demand, there are always conflicts in supply chains. This is interpreted as any supply chain consisting of many independent organizations, but is related to the transfer flows of goods, services and information as well as the flow of finances from the starting point to the end customer (Huynh Thi Thu Suong, Rosenberg and Stern (1970) define the conflict that occurs in the chain as due to the actions and decisions of one of the chain members that hinder relations in order to achieve its own ends. According to Etgar (1979), the cause of the conflict is also due to differences in attitudes and structures. Meanwhile, Gaski (1984) asserted that the source of power, whether coercive or non-coercive, also created disagreement among the members of the chain.

The above evidence demonstrates that cooperation in the supply chain is essential, because it not only answers the question of how chain members share common responsibilities and interests, but also addresses the inflexibility of management. Resolving conflicts and working together will bring many benefits, including: reducing inventory, improving customer service, using personnel more efficiently, better distribution by reducing the number of cycle times, accelerating the new product market faster, a stronger focus on core competencies, and improving the overall image (Togar and Sridharan, 2002).

With the advantage of wide seas, stretching across the three regions of the country, fisheries has become one of the key industries, playing an important role in Vietnam's economic development and one of the 5 sectors with the largest export value in the country. According to the report of the General Department of Fisheries, it is estimated that in 2021, exports of this group of goods reached 8.89 billion USD, up 5.6% compared to 2020, the rate of increase in the value of seafood production reached 3.01% compared to 2020, the total output reached 8.73 million tons, up 1% compared to 2020 (8.64 million tons), of which the production reached 3.92 million tons, up 0.9% with 2020 (3.88 million tons), farming reached 4.8 million tons, up 1% with 2020 (4.76 million tons).

The fisheries sector requires a lot of cooperation to develop, especially this issue becomes more urgent in the situation of covid-19 epidemic is still raging and the international situation is still volatile, causing the supply chain to be unstable and even broken. However, in Vietnam, cooperation in the international supply chain in the seafood industry is still not popular.

The article analyzes and evaluates the process of international supply chain cooperation of Vietnamese seafood enterprises, thereby proposing a number of solutions to state management agencies, The Vietnam Fisheries Association and enterprises to improve cooperation in the international supply chain for Vietnamese seafood enterprises.

The structure of the research paper consists of 5 parts: (i) Introduction, (ii) Theoretical basis, (iii) Research method, (iv) Research results, (v) Proposal.

2. Theoretical basis

2.1 International Supply Chain

Around the world, supply chain-related issues were first studied and discussed in the late 1980s. Porter's 1990 research seems to have caught the attention of many scholars around the world, defining the supply chain as a transition from raw materials to finished products through processing and distribution to the end customer. Another definition is that the supply chain is the network of organizations involved, through upstream and downstream links, in different processes and operations that create value in the form of products and services offered to the end consumer (Christopher, 1992). In other words, a supply chain consists of many companies, both upstream (supply), downstream (distribution) and the end consumer. Meanwhile, Mentzer et al. (2001) take a different perspective when defining a supply chain as a collection of three or more partners (organizations or individuals) directly involved in the flow of movement before and after products, services, finance, and/or information from origin to customer.

Domestically, supply chain-related issues are also gradually attracting the attention of many researchers. Nguyen Minh Tri (2018) concludes that the supply chain is the activities of every object in the chain from supplying raw materials, producing products and supplying that product to consumers, the goal of the chain is to meet the needs of customers, create useful value for the product and create surplus value, Make a profit for the members of the chain. However, supply chain studies have only stopped in some industries in better understanding the structure of the chain, the coordination and cooperation of the parts in the chain to come up with solutions to perfect the chain. Specifically, Huynh Thi Thu Suong (2013) found that the supply chain is an interconnected model with 3 basic activities: supply, production and distribution. In particular, the supplier of raw materials is the first factor and the beginning of the chain, the manufacturer is the second factor to buy raw materials from the supplier to turn into the product, and the third factor is the system of distributors and agents distributing the manufacturer's products to customers.

As such, the cited definitions all show that a common model of the supply chain is a journey of linking between factors including physical flows of products, information, finance, through the chain to provide entities that are goods and services to the end consumer who is the customer. These factors are in three basic activities:

- + Supply: the purchase of raw materials, in quantity, quality, when to buy, where to buy to serve the production process.
- + Production: the process of converting input materials, and semi-finished products from suppliers into final products.
- + Distribution: the journey of moving the product from the manufacturer through the distribution system to the consumer who is the customer.

Michael Hugos (2010) studied the "Quintessence of Supply Chain Management" and outlined five key factors that govern the development of an international supply chain: manufacturing, warehousing, location, transportation and information. International supply chain management takes place in a complex political, economic, cultural and social environment. Therefore, it requires close coordination between the flows of goods, services, information and cash within and outside the borders of countries (Mentzer, 2001).

2.2 International Supply Chain Cooperation

Supply chain cooperation is one of the most discussed topics in business today (Mathuramaytha, 2011). In research by Mentzer et al. (2000), cooperation is defined as "a common set of activities of closely related businesses to accomplish goals that benefit each other." By working together and coordinating actions, supply chain participants become partners in an alliance (Monczka et al., 1998). Today, companies are turning to finding resources outside their own scope to coordinate and produce superior performance (Anderson and Narus, 1990; Stern and Reeve, 1980). The underlying reason behind the cooperation is because a company can't successfully compete on its own while asking customers for products and services more and more rigorously (Kotler, 1997). The need for supply chain cooperation also stems from international competitive pressures or risks due to environmental fluctuations including changes in supply, demand and technology, opportunities from new markets... (Tate et al., 2010a; Chen et al., 2017). As a result, cooperation will increase the organization's ability to operate across borders to build and manage unique value-added processes to better meet customer needs (Fawcett et al., 2008). Cooperation in the supply chain will deliver higher performance than the enterprise achieved if operated independently (Lambert et al., 1999; Simatupang and Sridharan, 2002).

According to Simatupang and Sridharan (2002) and Lambert et al. (1999), cooperation between members of a chain occurs when they agree to jointly invest resources, share information, responsibilities as well as make decisions together. This can bring significant benefits and advantages to the business itself and its partners (Mentzer et al., 2000). On the other hand, Kampstra et al. (2006) argue that cooperation occurs when financially independent entities try to make the components of the chain "play" together, i.e. ensuring that the links in the chain interact to provide the necessary coordinated outputs.

Cooperation in production will help businesses save time, save costs, achieve higher efficiency in

production and business, create competitive power, share possibilities together, open up new markets (Dao Huu Hoa, 2008). This is one of the important solutions and the inevitable direction in the present and long term for the sustainable development of the chain of goods (Do Van Thong, 2012).

It can be seen that in the supply chain there are many forms of potential cooperation, but can be divided into two main categories such as Figure 1, first, vertical cooperation: can include cooperation with customers, internal cooperation and cooperation with suppliers; and second, horizontal cooperation: including cooperation with competitors, internal cooperation and cooperation with other businesses.

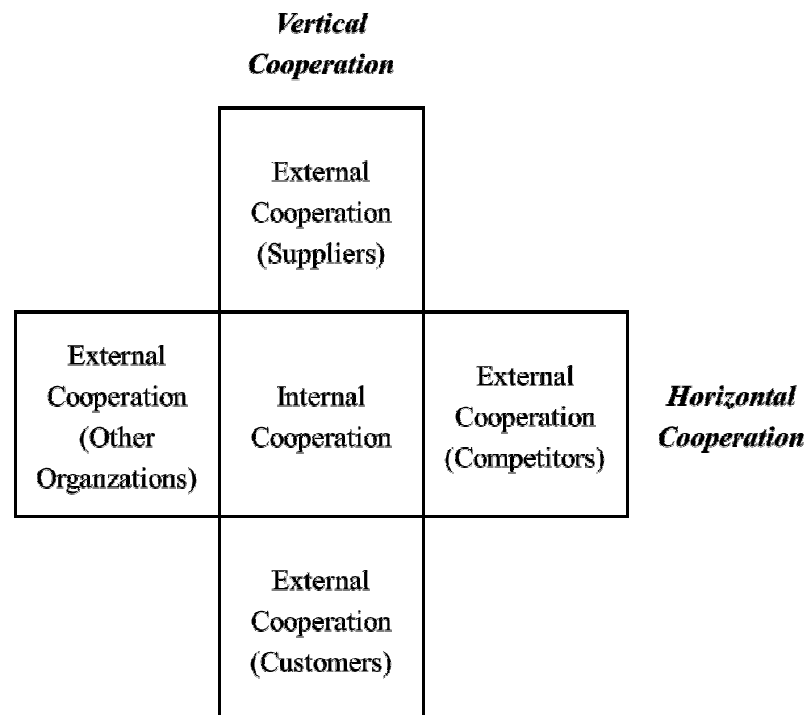


Figure 1: Scope of cooperation

Source: Research team synthesized

3. Research methods

The main research method used is qualitative. The team used, analyzed, compared primary and secondary data sources collected from previous studies, domestic and foreign articles, available materials, research works related to the topic, trusted websites for the search and selection of information, specifically from the General Statistics Office, the General Department of Customs, the Vietnam Association for Seafood Processing and Export (VASEP).

At the same time, the authors also conducted in-depth interviews with experts and senior leaders such as directors, deputy directors, head of department, deputy department and officials in charge of supply chain cooperation. The interviewees came from government agencies, economic experts, businesses and seafood-related organizations in Vietnam such as the Vietnam Association for Seafood Processing and Export (VASEP). The subjects interviewed with different characteristics will provide multidimensional and complete information for the study content, ensuring the achievement of the goal. Open-ended questions are included in the interview for participants to present their opinions under the author's guidance.

4. Results

4.1 Practice of international supply chain cooperation of Vietnamese seafood enterprises

4.1.1 International supply chain situation of Vietnamese seafood enterprises

Breed Planting: Breeding is an important factor, playing a decisive role in improving economic efficiency, productivity and quality of aquaculture products. With the advantage of a large water surface area, Vietnam has many breeds of high economic value, bringing great export value to the whole industry. However, currently, the condition of the breed is of poor quality and carrying pathogens regularly occurs. Meanwhile, the inspection and quality control of aquatic breeds has only stopped at the detection of some common pathogens. At the same time, the hatcheries have not been planned, developed centrally, fragmented, even lacked a common voice while cooperating, combining to produce and trade aquatic varieties, leading to many stagnant production camps in the import of broodstock.

Aquaculture: Aquaculture for export is concentrated mainly in the Mekong Delta. With favorable conditions, this area accounts for 95% of the total pangasius production and 80% of the country's shrimp production. In 2021, despite being affected by the Covid-19 epidemic, which caused farming and production activities to stall, aquaculture production still increased compared to the previous year, reaching 4,805.8 thousand tons (General Statistics Office, 2022). In particular, in aquaculture, businesses have had models of chain linkage between links in the chain. Typical is the model of social enterprise launched by Minh Phu Seafood Group and spread in the Mekong Delta.

Exploiting: Currently, localities are promoting the exploitation of fisheries sources along the coast of Vietnam, but fishing products for export only take place in some areas such as the central coast and the Mekong Delta. Due to the impact of covid-19 prevention measures, many fishing vessels have to cease operations, lying on the shore. However, thanks to the government's timely incentive policies, mining output in 2021 is still on track to increase slightly with 3,920.8 thousand tons (General Statistics Office, 2022). Therefore, in order to build sustainable fishing activities, Vietnam's seafood supply chain needs to have a model of linking fishermen with organizations and enterprises to buy, process and consume.

Processing: In the production chain of the seafood industry, processing is considered the final stage, contributing to improving the value of products before consumption to the market. Currently, Vietnamese seafood processing enterprises are facing many barriers of strict technical requirements on food safety and hygiene, origin, sustainable development factors as well as anti-dumping lawsuits. Although most factories have applied HACCP, GlobalG.A.P, GMP standards,... but Vietnam's seafood products still have a lot of limitations when placed on the scale with items from other countries such as Thailand, Norway ... The quality of the product is unstable.

Export:

Seafood export output and turnover

- **Seafood production**

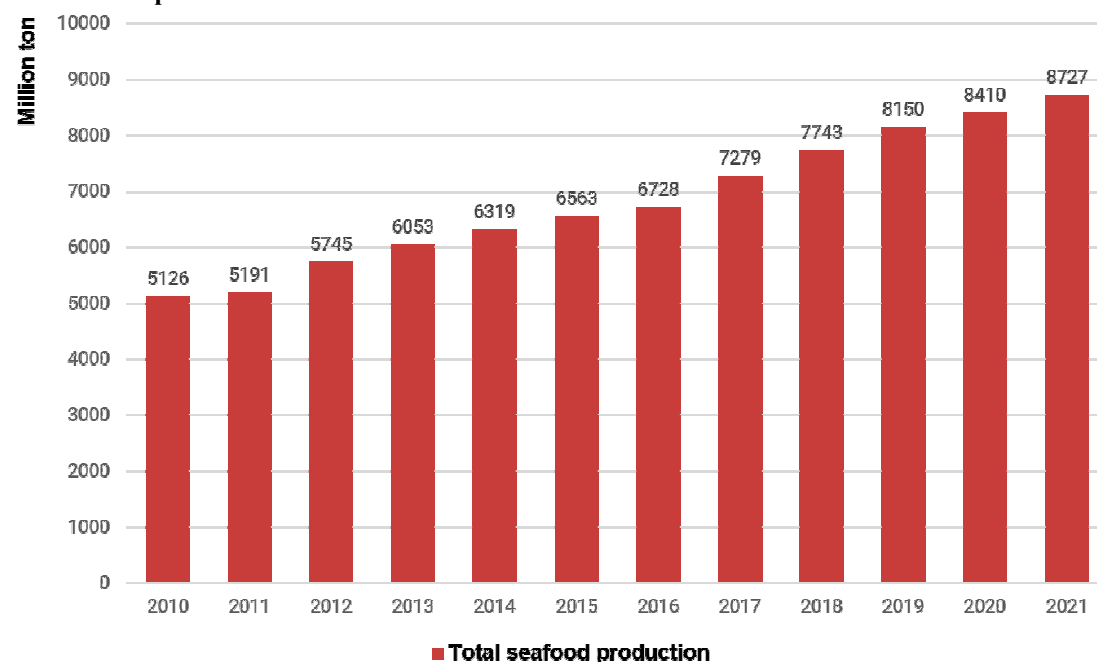


Figure 2: Vietnam's seafood production in the period of 2010 – 2021

Source: VASEP (2021)

Through figure 2, it can be seen that in the period from 2010 to now, Vietnam's total seafood production has a stable growth rate with a significant increase in total output. Despite many difficulties such as the salt limit warned at the level of natural disasters, the unstable political situation in Europe or the imposition of anti-dumping duties of the US, Vietnamese enterprises still try to overcome all barriers, making the seafood industry the economic spearhead of the country.

- **Seafood export turnover**

Since 1997, Vietnam's seafood exports have started to make certain improvements and development. After 24 years of renovation and development, from the initial \$800 million mark, in 2021 seafood export turnover has increased 11 times, with an average annual growth rate of 10%, putting Vietnam in the top of the world's largest seafood exporters. In 2020, due to the international supply chain disruption, Vietnam's seafood exports only reached 8.5 billion USD. However, in the next year, seafood export turnover made a spectacular

comeback with the result exceeding the target, reaching 8.9 billion USD.

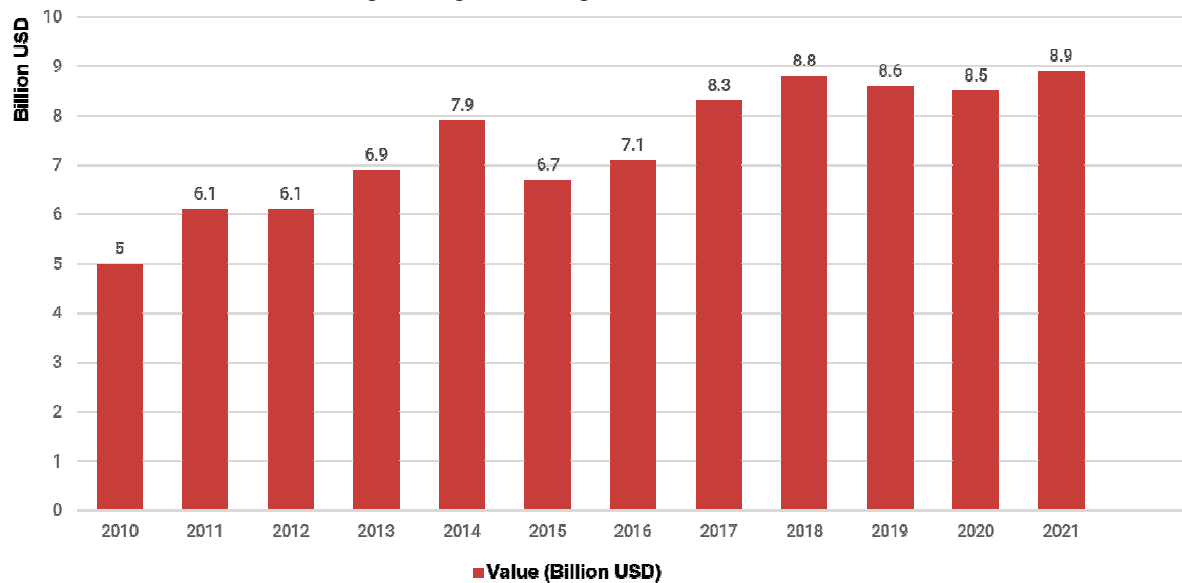


Figure 3: Seafood export turnover in the period 2010 - 2021

Source: VASEP (2021)

Export items

Among Vietnam's main seafood exports in 2021, shrimp and other fillet fish still account for the largest proportion of exports, about 64% of total export turnover. Although accounting for a small proportion, bivalvia such as clams, oysters, and clams... grow very fast, especially in the EU market, reaching nearly 74 million USD in the first 11 months of 2021.

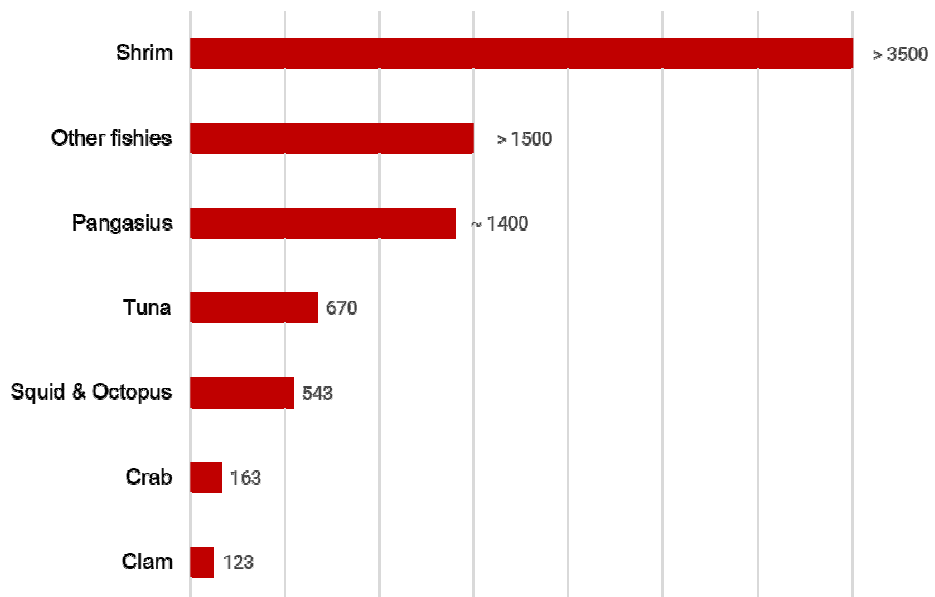


Figure 4: Value of Vietnam's key seafood exports in 2021 (Unit: Million USD)

Source: General Statistics Office, Ministry of Industry and Trade (2021)

Export market:

Until now, Vietnam's seafood products have been exported to 170 countries and territories. Over the years, Vietnam's largest seafood export market includes the US, Japan, the EU and China. In particular, the EU is considered a potential partner in EU-Vietnam Free Trade Agreement (EVFTA). The leading importers of Vietnam seafood products and the proportion of export turnover in the period of 2020 - 2021 are shown as follows:

Table 1: Top 10 seafood export markets in Vietnam in the period 2020 – 2021

Market	2020	2021	Growth (%)	Density (%)
The USA	1.620,629	2.049,359	26,5	23,0
Japan	1.422,252	1.325,597	-6,8	14,9
China	1.203,234	990,648	-17,7	11,1
Korea	768,518	807,785	5,1	9,1
The UK	344,638	316,137	-8,3	3,6
Thailand	244,357	267,034	9,3	3,0
Canada	262,760	265,618	1,1	3,0
Australia	228,202	265,457	16,3	3,0
Holland	219,382	228,085	4,0	2,6
Germany	180,010	200,052	11,1	2,2

Source: VASEP (2021)

Difficulties when exporting seafood:

In addition to the achievements, Vietnam's seafood industry still encounters some limitations when expanding and diversifying the market.

Firstly, Vietnamese seafood enterprises have not yet built a brand in the export market. This stems from the limitations in promoting the image of the product, and there are no strict measures to handle when the phenomenon of tricking occurs and smears the product in foreign markets.

Secondly, Vietnamese enterprises have not had the opportunity to access much market information and international partners. The majority of customers' contacts are self-searched through the Internet, fair booths or product exhibitions.

Thirdly, Vietnamese seafood enterprises have not yet built a long-term network of close partners. Therefore when there is a lack of raw materials supply and production manpower, enterprises will face the risk of permanently losing orders because international customers will turn to traders from India, Indonesia or Thailand.

Fourthly, Vietnamese seafood still faces many difficulties when the EU fines "yellow card" due to violations of technical standards as well as unknown origin. At the present, products will have to go through NAFIQAD checks and bypass the FDA's rigorous inspection before being officially distributed to foreign markets.

4.2 Awareness of international supply chain cooperation in Vietnamese seafood enterprises

The world economy has changed rapidly over the past decades, posing many challenges for businesses in terms of sustainable growth, economic development in parallel with cooperation in all fields, especially in the fisheries sector. In this context, global seafood enterprises are increasingly interested in their product supply chains, are constantly striving and offering strategic solutions for sustainable development, multidimensional cooperation, not only with suppliers, customers, but also cooperating with other counterparts. In addition, in order to be able to meet the requirements in the context of the broken supply chain due to the Covid-19 pandemic, Vietnamese seafood enterprises must cooperate for the long-term common good.

In the world, the concept of supply chain management is well known but in Vietnam is still a new phenomenon because most Vietnamese enterprises do not have enough knowledge of it as well as lack experience in building and operating an effective supply chain. In particular, the remote geographical distance and different cultural characteristics make many businesses afraid to cooperate with partners from abroad or have a bad combination. Many businesses are not really confident in their competence or do not have much knowledge about culture and business with international. The gap factor will have less impact on cooperation in the international supply chain if the partners are all Vietnamese enterprises.

This leads to mismanagement and reduced competitiveness. According to the development of economic integration, seafood exporters in Vietnam have become more aware of cooperation in international supply chains.

Businesses have taken more proactive actions in finding partners and are ready to adapt.

Currently, linking the supply chain and consumption of seafood is being promoted by the 970 Working Group of the Ministry of Agriculture and Rural Development so that enterprises and cooperatives can link together, contributing to promoting efficient production and consumption, especially for export. In particular, in the context of 19 southern provinces and cities jointly implementing social distancing under Directive 16/CT-TTg to combat Covid-19, it will cause supply chain disruptions.

4.3 Contents and forms of implementation of international supply chain cooperation in Vietnamese seafood enterprises

In the context of international integration, the world is constantly changing with many fluctuations, posing countless challenges for Vietnam's seafood industry: The weather is complicated due to climate change, directly affecting the Mekong Delta region; transportation costs in trade between countries have not shown signs of abating; technical barriers increasing magic comes with traceability requirements; challenges from competition from foreign enterprises; the EU yellow card has not been removed. With the urgency of increasing requirements, Vietnamese seafood exporters have participated in cooperation with each other in the supply chain, improving value chain efficiency and increasing business efficiency.

In general, Vietnamese seafood enterprises have taken steps to cooperate with enterprises in their supply chain, such as cooperation in logistics, information, raw materials sources,... There are two main types of supply chain cooperation:

Vertical cooperation: Cooperation when two or more organizations from different levels or stages in the supply chain share responsibilities, resources, and information about their performance to serve the relatively similar end customers. In the case of Vietnamese seafood enterprises, it is easy to see that there is a long-term cooperation relationship between the farming and exploiting enterprises and the business selling raw materials such as feed and breeding...

Horizontal cooperation: Interorganized system relationships between two or more companies at the same level or stage in the supply chain to allow for easier work and cooperation to achieve a common goal. In the case of Vietnamese seafood enterprises, it is cooperation through projects to improve the aquaculture environment, improve production lines or share information,...

With these two types of cooperation, there are many forms of Vietnamese seafood enterprises implementing cooperation such as:

Sharing information: Sharing information about processes, plans, ideas, strategies and confidential information,... that affects the partner. The level of information sharing depends on the agreement, the information shared will be used by the partner to plan, decide on product distribution and adjust the production plan,... Vietnamese seafood enterprises will share their information on the aspects of farming, processing and distributing or business objectives and plan;... helping the parties achieve common goals. At a higher level, businesses move towards collaborative communication, two-way and multi-level, the information shared is also more diverse and detailed, then the value information exchanged will become common data.

Resource sharing: Take advantage of the factors and production capabilities of one enterprise into the factors and production capabilities of other enterprises. This utilization helps businesses minimize production costs while still increasing business efficiency significantly. There have been cases of Vietnamese seafood enterprises cooperating in production in the use and improvement of aquaculture ponds, or distribution channels. This is often a back-and-forth relationship, the two sides are utilized to each other's strengths to improve their business without spending too much money.

Implement cooperation: Make transactions in a collaborative way. Typical activities of Vietnamese seafood enterprises in this form of cooperation are reflected in long-term purchase contracts, close and close coordination between buyers and sellers, the accuracy and effectiveness of contracts and how to execute contracts. It is easy to see this cooperation through contracts to buy and sell seedlings, feed sales,...

Contract coordination: Assign contracts to a similar business in the same supply chain, or an organization. Businesses benefit from contract incentives, establishing a close relationship between the seller and the buyer. For example, with a contract of animal feed seafood can be distributed to different seller businesses to ensure quantity, quality as well as delivery duration.

4.4 Benefits gained from international supply chain cooperation in Vietnamese seafood enterprises

From the fact of research, the cooperation brings many benefits to businesses in general and seafood enterprises in particular. This is the motivation for businesses to link up and cooperate with each other.

Table 2: Benefits of implementing cooperation in the supply chain from previous studies

BTI	Benefits of cooperation in the supply chain	Author, five
1	- For the industry: raise the competitive position, develop in a sustainable and effective way; members shall cooperate closely on the division of labor; The process of restructuring the industry in many aspects; thoroughly exploit the comparative advantages of each member of the chain; operate in a regular way, step by step deeply involved in the international chain. For the business itself: the members of the chain are always closely linked to each other towards sharing the benefits achieved; increase competitiveness; raise your position in raw material procurement negotiations – outsource external services and seek out major distributors; timely grasp of demand and market fluctuations; active in input and output activities; improved performance; increase revenue, reduce costs, be more flexible.	Huynh Thi Autumn Dew, 2013
2	- Bringing higher added value. - Share large investment opportunities, take risks together, share resources, reasonable growth and return on investment. - Enhance the performance of the company. Improved performance in the supply chain. Multiply the results from the effort to work independently. - Manage the supply chain more effectively.	Ho Duc Hung, Dang Duy Quan, Ha Kien Tan, 2018
3	- Make up for your shortfall by coordinating with your partner. - Coordinate and combine members in the stages of the chain during the operation so that they fit together. - Help each other in choosing the first raw materials, support each other in terms of capital and techniques in the production and business process. - Link together in the field of product consumption to avoid price pressure to increase the strength in the competition.	Ngo Thi Huong Giang, Nguyen Thi Thuy, La Quy Duong, 2019

Source: Aggregated author group

Speaking at the workshop "Restructuring the agricultural sector associated with the construction of new rural areas in Yen Bai province from 2018 to 2020, oriented to 2025" Mr. Tran Dinh Luan - Deputy Director-General of the General Department of Fisheries emphasized: "It is necessary to build closed aquaculture models to create a certain output, cultured products meet standards, food safety and hygiene, quality meets the requirements of the market. The diversification of farmed species, improving production, quality and efficiency in the fisheries industry; building a model of seafood production chain from feed and seedlings to the application of post-harvest processing technology and product consumption is very necessary, thereby sustainable development to improve production and ensure the market of seafood products."

Mr. Ngo Tan, Deputy Director of the Department of Agriculture and Rural Development, shared: "The State needs to play a leading role in building policy mechanisms, creating a healthy legal environment for chain participants through forms of horizontal cooperation and vertical cooperation. It is a way to overcome the "devaluation season" that has repeated over the past time before thinking about improving the competitiveness in the international seafood supply chain."

5. Recommendations

5.1 For state management agencies

In order to improve cooperation in the international supply chain of Vietnamese seafood enterprises, the authors make a number of recommendations to state management agencies as follows:

Firstly, establish a clear legal mechanism and reform administrative procedures such as reducing the burden on enterprises in complying with regulations related to fees, fees, accounting regimes and simplifying financial statements. At the same time, perfecting dispute resolutions in the implementation of economic contracts are the most urgent measure. Currently, businesses can be more assured to invest in risky fisheries. Continue to effectively implement the Law on Support for SMALL and MEDIUM ENTERPRISES, with a focus on developing a program to support small and medium-sized enterprises to join the value chain in the period of 2021 - 2025 with market support, support production and business links, support brand development, support on technical standards, quality measurement, credit finance support, experimental production support...

Secondly, the State should issue support mechanisms and policies so that enterprises can easily cooperate in development with other enterprises, encourage cooperation, promote trade as well as create all favorable conditions to make Vietnam's seafood industry truly become the economic spearhead of the country.

Thirdly, it is necessary to further strengthen the advocacy and training for enterprises in the cooperation of seafood supply chains; encourage models of organization, linkage, cooperation, production joint ventures, trade between the fields of seafood production, among raw material producers, processors, traders, seafood exporters, credit investors... according to the supply chain of the goods industry with the participation of management and organization of industry associations and associations. At the same time, regularly organize events: seminars, forums, seminars, dialogues, training ... to raise awareness and cooperation capacity for Vietnamese seafood enterprises.

Fourth, promote the role of professional associations such as the Vietnam Tuna Association, Vietnam Seafood Processing and Export Association, Vietnam Fisheries Association,... in conjunction with task force 970 of the Ministry of Agriculture and Rural Development informing information channels on seafood supply chains for enterprises, especially providing up-to-date information on legal mechanisms; advising businesses in the process of cooperation and handling if disputes occur... so that enterprises and cooperatives can link and cooperate with each other, contributing to promoting effective production and consumption.

5.2 For the Vietnam Association of Seafood Exporters and Producers

In order to enhance the cooperation capacity of our seafood enterprises, the authors recommend a number of measures for the Vietnam Association of Seafood Exporters and Producers (VASEP) as follows:

Firstly, constantly promote annual trade promotion programs especially on mass media, facilitating enterprises and production establishments' participation.

Secondly, organize seminars on a regular basis to exchange experiences of the Law on Cooperatives in 2012 and relevant documents on how to organize and operate effective agricultural cooperative models, how to approach markets for consumption of aquatic products, and build links between cooperatives, professional associations and businesses.

Thirdly, actively nurture the capacity to forecast the world seafood market in terms of: changes in import policies, regulations on food safety and hygiene standards, quarantine requirements, import conditions for seafood products, prices and product types, demands and consumption trends, market fluctuations and product quality needs to promptly supply businesses and manufacturers.

Fourth, step by step found representative offices and distribution networks of Vietnamese seafood products. The Association needs to focus its trade promotion resources on major markets such as the EU, the US, Japan ... and emerging markets such as China, Hong Kong, Eastern Europe, The Middle East, North Africa and South America.

Fifth, focus on demonstrating the key role of the Association in negotiating and agreeing on international cooperation to ensure the rights and legality of the fisheries sector and seafood export products to improve the value of agricultural products and exports.

5.3 For Vietnamese seafood enterprises

From the results of the study combined with the experience of cooperation in the supply chain of seafood enterprises in the world, the authors make a number of recommendations for Vietnamese seafood enterprises as follows.

First, focus on building a corporate brand to improve credibility. Before cooperating, partners tend to consider a number of criteria, including: brand, size, financial ability, payment method,... Small businesses and medium enterprises especially need to build their own brand through providing quality products and services, assuring delivery schedules as well as types and quality; and especially making the punctual payment... In addition, organizations can benefit from the Trade Promotion Department or Local and Regional Industry Associations to search for cooperators.

Second, reinforce the corporate power. Extending the power of the business will enhance their positions while creating the motivation for cooperation in a more certain way. Vietnam seafood enterprises are mostly SMEs considering capital investment. Therefore, companies need to propose a specific business strategy and increase investment in upgrading modern machinery and technology at the same time to increase the value of products as well as productivity.

Third, reform the culture of cooperation. Businesses need to build and strengthen a strong culture, targeting customers. To create such a culture, every business needs to build for itself the philosophy, orientation, core value of business. Besides, developing standards, regulations and principles in cooperation with partners is a must. To do so, the parties in the chain need to ensure reliable operation, as well as share the same vision and goals towards the common good while not exploiting their partners.

Fourth, enhance information sharing among components of the supply chain in a way that is fair,

transparent, fast and efficient. Information sharing is key to improving the ability to respond to changes in customer needs and market uncertainty, which helps reduce the communication gap between members, which can reduce supply chain performance. Observed practice shows that suppliers often do not offer exclusively to a single customer; Non-close cooperation relationships can cause shortages of materials.

Fifth, apply technology in supply chain operations. With the support of technology systems, the supply chain will operate more efficiently by ensuring the smooth flow of information and more accurate supply chain decisions. In order to be able to exploit this common data source, Vietnam's seafood supply chain can apply Blockchain technology - a database containing information that is simultaneously managed by multiple participants in the same system. Therefore, the application of Blockchain technology to the seafood supply chain means that all components in the chain must cooperate with each other. In addition, in terms of the issue concerning traceability of fisheries to increase the level of trust between businesses, businesses can apply RFID technology to improve and improve the efficiency of supply chain management instead of documents and papers. In addition, with GIS technology, through information sharing, managers can collect and analyze hundreds of supply chains, develop and compare contingencies of plans, better control warehouse space to suit production strategies, forecast and balance supply and demand as well as manage potential risks.

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