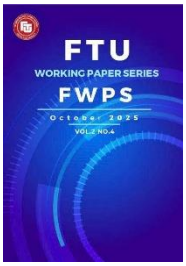

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PHÂN TÍCH QUY TRÌNH KINH DOANH XUẤT KHẨU DỤNG CỤ NHÀ BẾP CỦA VIỆT NAM SANG NHẬT BẢN

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Tóm tắt

Trong những năm gần đây, Việt Nam đã trở thành một thị trường nổi bật của ngành hàng dụng cụ nhà bếp với công nghệ sản xuất tiên tiến và phương pháp sản xuất tiết kiệm để đáp ứng nhu cầu quốc tế đa dạng. Nghiên cứu này tập trung vào ngành xuất khẩu dụng cụ nhà bếp của Việt Nam dựa trên quy trình chuẩn hóa do SUNHOUSE GROUP CO. áp dụng, tập trung vào khám phá các yếu tố thiết yếu của quy trình xuất khẩu, bao gồm tài liệu, quy định và các giai đoạn hậu cần. Báo cáo sử dụng mô hình BPA để xác định các quy trình kém hiệu quả và đưa ra các khuyến nghị nhằm tối ưu hóa hoạt động. Ngành xuất khẩu dụng cụ nhà bếp của Việt Nam phải đối mặt với nhiều thách thức như thời gian xử lý thủ tục hải quan lâu do quá trình thủ công và mã HS không nhất quán, cơ sở hạ tầng kiểm soát chưa đủ tốt, và hệ thống kỹ thuật số không hiệu quả cho các chứng từ như CFS. Các khuyến nghị bao gồm triển khai chuyển đổi số và tận dụng AI để thúc đẩy quản lý chuỗi cung ứng và tài liệu tốt hơn, và đầu tư vào các cơ sở kiểm soát chất lượng tiên tiến. Để tăng hiệu quả và độ tin cậy, chính phủ nên hiện đại hóa hệ thống VNACCS/VCIS cũng như cơ sở hạ tầng hậu cần, đặc biệt là các tuyến vận chuyển hàng hóa.

Từ khóa: dụng cụ nhà bếp, phân tích quy trình kinh doanh, xuất khẩu Nhật Bản, khó khăn

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EXPORT BUSINESS PROCESS ANALYSIS CASE OF VIETNAM'S COOKWARE EXPORTATION TO JAPAN

Abstract

In recent years, Vietnam has gained prominence in the global cookware market by capitalising on its advanced manufacturing technology and cost-effective production methods to meet diverse international demands. This study focuses on Vietnam's cookware export industry based on the standardized process employed by SUNHOUSE GROUP CO., with an emphasis on exploring essential elements of the export process, including documentation, regulatory compliance, and logistical stages. Using the BPA model, the report identifies process inefficiencies and provides actionable recommendations to optimize operations. The current cookware export industry faces challenges such as long customs processing times due to manual interventions and inconsistent HS code use, insufficient quality control infrastructure, and inefficient digital systems for documents such as CFS. The recommendations include implementing digital transformation and utilizing AI for better document and supply chain management, and investing in advanced quality control facilities. To increase efficiency and dependability, the government should modernise the VNACCS/VCIS system as well as logistics infrastructure, particularly freight routes.

Keywords: cookware, business process analysis, Japan exportation, bottlenecks

1. Introduction

Cookware is a fundamental consumer product that serves a vital role in both household kitchens and commercial culinary spaces worldwide. Over recent years, Vietnam has established itself as a significant contender in the global cookware industry, utilising advanced manufacturing capabilities and competitive pricing strategies to meet the needs of diverse international markets.

Within the highly competitive and ever-evolving cookware industry, SUNHOUSE GROUP CO. stands out as one of the most reputable and dependable suppliers of high-quality cookware products to global markets (Vietnam Pictorial, 2022). This report seeks to provide a detailed analysis of the cookware export business from Vietnam to Japan, with a specific focus on evaluating SUNHOUSE GROUP CO.'s standardised export activities to a specific Japanese clientele, Iris Ohyama Inc. Key areas of this evaluation include paperwork requirements, compliance with regulations, and critical stages involved in the export process.

Identifying the standard process in export activities can be done by analyzing the practices of key players in international trade. As a leading firm and pioneer in housewares and kitchenwares, SUNHOUSE's products and processes have met strict international inspection regulations (Vietnam Pictorial, 2022), and garnered market share and popularity among customers (T.H, 2022). Therefore, we believe it is appropriate to see the current export activities of SUNHOUSE as a temporary standard for analysis.

In addition, the report aims to contribute to a more comprehensive overview of Vietnam's cookware export sector by identifying potential bottlenecks based on SUNHOUSE's current process and offering practical recommendations to enhance the export process. The identification of inefficiencies will be guided by the principles of the BPA model. Through the research, we aspire to uncover areas for improvement and suggest strategies to bolster Vietnam's competitive edge in the global cookware export market.

2. Research methodology

This study employs a qualitative research approach using secondary data to conduct the Business Process Analysis (BPA) of the cookware export process evaluation from Vietnam to Japan. Through the analysis of the industry standard process taken from SUNHOUSE Group Co., the BPA framework is applied to map out the Buy-Ship-Pay process. Therefore, the study was able to identify bottlenecks and challenges faced by SUNHOUSE and the Vietnamese cookware exporter in trading with Japanese companies. Based on these findings, the study proposes recommendations for Vietnamese traders and the government to enhance cross-border trade efficiency and smoother export processes with Japan.

3. Theoretical framework

According to Raeburn (2025), Business Process Analysis (BPA) is a systematic strategy for examining and improving the procedures that govern a company's everyday operations and a part of the broader subject of business process management (BPM), which analyses, maintains, and optimises corporate workflows. BPA assesses whether current processes are still effective and aligned with corporate objectives, or if they need to be revised or redesigned (Raeburn, 2025). There are several major advantages of doing a BPA. First, it assists in identifying gaps in fundamental activities such as hiring, invoicing, and transaction closing, which can have a direct influence on the bottom line (Raeburn, 2025). Second, it also specifies the resources required for each process, allowing for more effective capacity planning and informed decisions, making it especially effective during periods of cultural or environmental change since it allows organisations to adapt or develop totally new processes (Raeburn, 2025). Third, BPA helps to decrease inefficiencies, redundant work, and workflow bottlenecks. Finally, BPA facilitates continuous workflow refinement, allowing firms to make regular

adjustments more efficiently (Raeburn, 2025).

4. Overview of cookware export from Vietnam

The cookware industry in Vietnam has been steadily developing its production capacity, with various businesses participating in the global supply chain. With strong government support, ideal geopolitical location, cheap labor price, and other export advantages, Vietnam has emerged as a key hub for this industry and become an attractive choice for global investors (Changwen, 2023).

Specifically, Vietnam holds local and foreign-invested cookware manufacturers, providing products for both domestic and international markets. The Vietnamese cookware industry is extremely competitive with some leading companies acting as exporters. According to Tradesparq, a trade networking platform connecting global B2B buyers with international suppliers, some notable Vietnamese exporters are SUNHOUSE Group; BK VINA Co., Ltd; Supor Vietnam Co. Ltd; and Jin Sufu Precision Industry Vietnam Co., Ltd. Other foreign-invested brands, such as Lock & Lock or Elmich, are also listed; nevertheless, they only account for a small percentage of the market share.

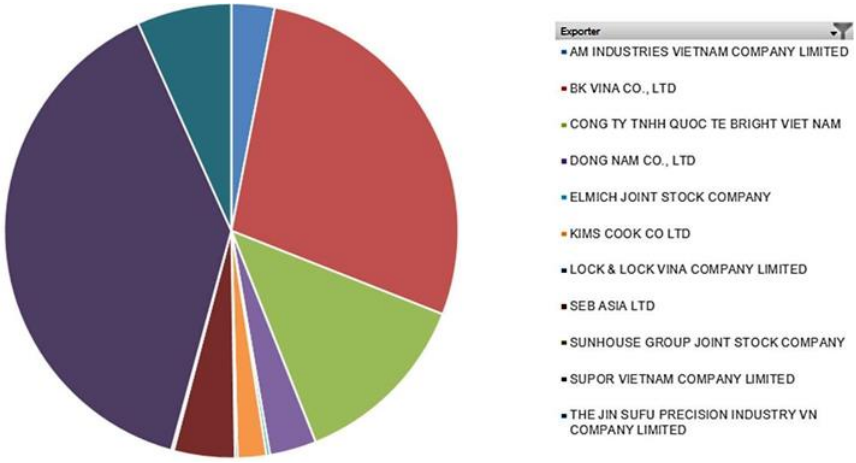

Figure 1: The Vietnamese cookware market structure

Source: Tradesparg (2024)

Regarding competition with foreign manufacturers, competitors include Tefal (France), the largest brand in the cookware segment. Other manufacturers, such as La Creuset (France), also hold significant market shares in the premium segment.

In terms of competitive advantages, Vietnam's cookware industry has the advantage of low costs but faces challenges in technology and branding compared to manufacturers from China, South Korea, and Europe. The growing trend of green consumption and export to the US and EU markets is providing opportunities for Vietnamese companies to increase the value of their products.

4.1. Vietnam's export of cookware

4.1.1. Vietnam's export turnover

In 2023, Vietnam experienced a decline in both export and import turnover due to challenges in sourcing raw materials and weakened consumer demand. Export turnover stood at 354.7 billion USD, marking a 4.6% decrease from the previous year, while import turnover reached 326.4 billion USD, down 9.2%. Despite these challenges, the trade balance recorded a surplus of 28.3 billion USD (Ministry of Industry and Trade, 2023).

Building on a strong post-pandemic economic recovery and efforts to sustain growth despite global economic fluctuations, in 2024, Vietnam achieved notable progress in trade. Total trade turnover increased to 786.29 billion USD, reflecting a 15.4% increase from the previous year. Exports grew by 14.3%, while imports increased by 16.7%. The trade balance recorded a surplus of 24.77 billion USD (General Statistics Office of Vietnam, 2024).

4.1.2. Vietnam's export turnover

Vietnam has been rising as a global manufacturing hub. Nevertheless, the post-COVID-19 period has led to global economic challenges and uncertainties, which have caused weaker global demand, and consequently, Vietnam's export performance was hampered (Khue V., 2024). More particularly, in 2023, exports of processed industrial goods only reached $301.1 billion, a decrease of 5.7% compared to 2022, accounting for nearly 85% of Vietnam's total export value.

Vietnam's cookware market, a niche market of processed industrial goods, has been experiencing substantial growth over the past decades. However, its turnover has experienced fluctuations recently due to the impact of COVID-19; in particular, the industry has witnessed a decrease in its revenue within the past 2 years (Tradesparq, 2024). The first 10 months of 2024 witnessed the total revenue of cookware exportation of 145.2 million USD, approximately 8% lower than that of the same period last year. With the global market recovering and export orders rising, Vietnam's export index is expected to grow, though challenges remain (Vietnamplus & MBS, 2024).

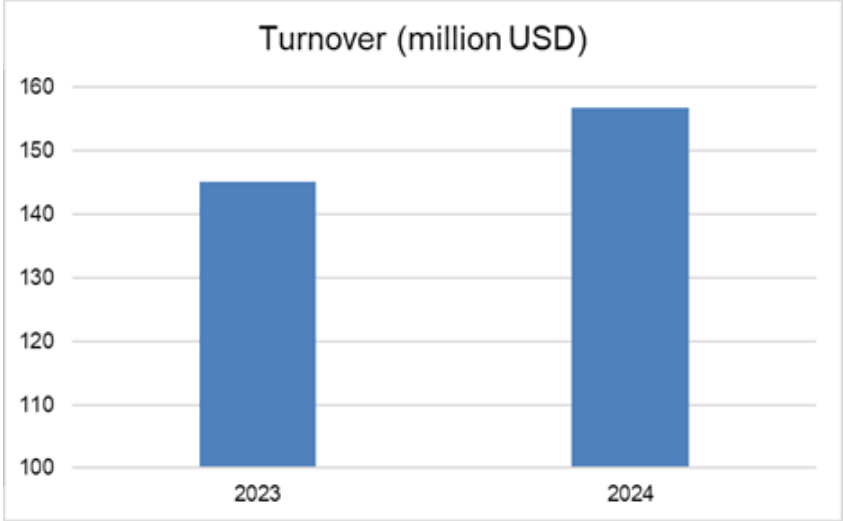

Figure 2: The cookware export turnover in the first 10 months of 2023 and 2024

Source: Tradesparq (2024)

4.1.3. Major exported commodities

Vietnam is well-known for its exported cookware, which is made of alloy/metal. From January 2023 to October 2024, most of the cookware exportation is marked up by the four most popular products: (1) stainless steel pot, (2) stainless steel pan, (3) aluminum pot, and (4) aluminum pan. Among these, aluminum pan is exported the most with 43% of exported products, outweighing the other three (Tradesparq, 2024).

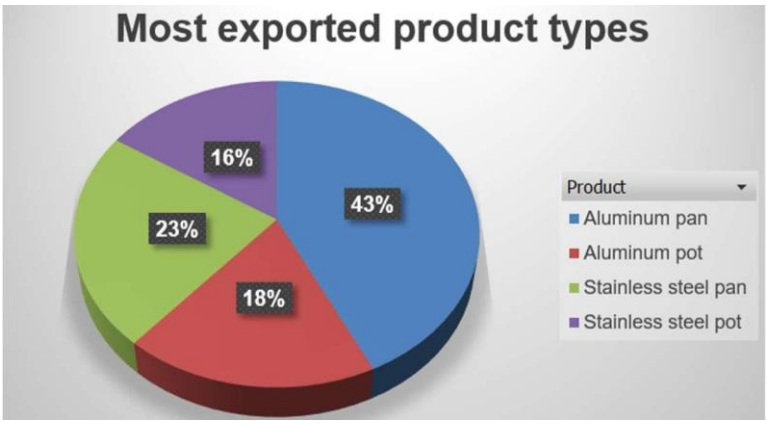

Figure 3: Vietnam's most exported cookware products

Source: Tradesparg (2024)

Each type of exported product varies in its purpose of use, packaging, features, and other characteristics, as indicated by its HS code. Exported stainless steel pots/pans are mostly 73239310, while the aluminum pots/pans code 76151090 account for the majority (Tradesparq, 2024).

4.1.4. Major exported market

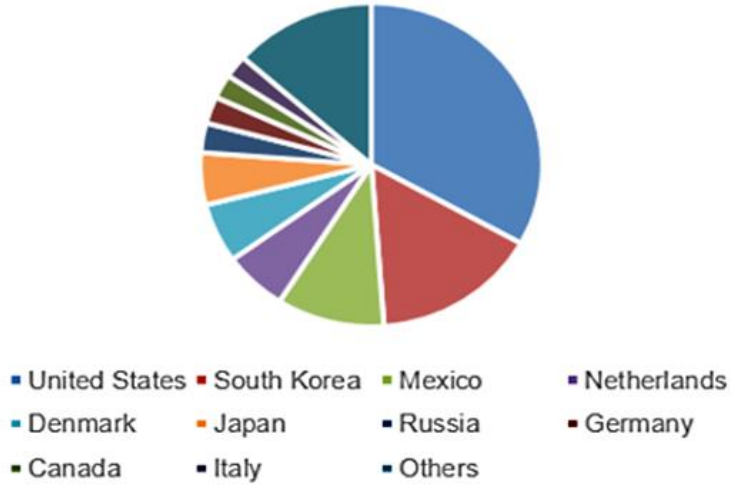

Figure 4: Vietnam's major trading partner

Source: Tradesparg (2024)

Vietnam exports cookware products to more than 40 countries/territories. From January 2023 to October 2024, Vietnam exported a total of 79 million USD of cookware products, with the US contributing the highest proportion, followed by South Korea and Mexico. Japan ranks sixth, with an importing value of around 4 million USD (Tradesparq, 2024).

4.2. Vietnam's cookware exports to Japan

4.2.1. Vietnam's cookware trading with Japan

In 2024, Vietnam exported nearly 7.9 million USD worth of cookware to Japan, accounting for approximately 5% of the country's total cookware export value (Tradesparq, 2024). Japan is one of Vietnam's key trading partners in the cookware industry, with steady demand for high-quality stainless steel and aluminum cookware.

4.2.2. Major traded commodities

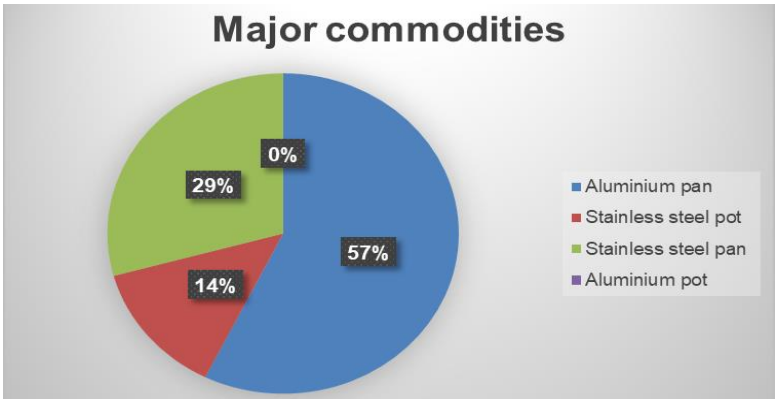

Figure 5: Vietnam's major traded commodities with Japan

Source: Tradesparg (2024)

The major cookware products exported from Vietnam to Japan are aluminum pans/pots and stainless-steel pans/pots, reflecting Japan's preference for lightweight, durable cookware. Aluminum pans accounted for the largest share, making up 57% of total exports. Meanwhile, stainless steel pans and pots represent 29% and 14% of exports, respectively. Aluminum pots accounted for an insignificant proportion, with only two transactions totaling 183.74 USD, indicating either minimal export demand or a market preference for other materials (Tradesparq, 2024). Therefore, it seems like the Japanese market prefers stainless steel or non-stick materials.

4.2.3. Major trade partners

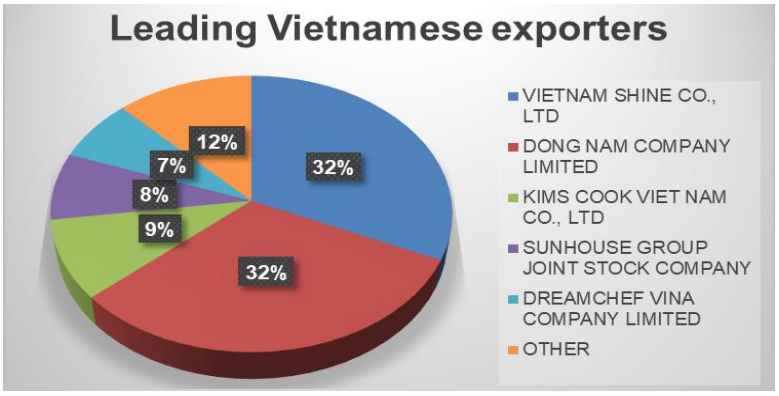

Figure 6: Vietnam's major exporters

Source: Tradesparg (2024)

For Vietnam, the five biggest exporters are Vietnam Shine, Sunhouse, Kims Cook, Dong Nam and Dreamchef Vina. Among those, Vietnam Shine Co., Ltd and Sunhouse Group Co. are the biggest, each holding approximately 32% of the market share. Kims Cook Viet Nam Co., Ltd follows with a 12% share; meanwhile, Dong Nam Company Limited and Dreamchef Vina Company Limited hold 9% and 8% market shares, respectively, reflecting their important yet smaller roles in the industry. Other smaller exporters such as Supor Vietnam Co., Ltd. and Tan Hop Thanh Co., Ltd account for 7%, indicating that while few companies dominate the market, there is still a wide range of exporters contributing to Vietnam's overall export economy (Tradesparq, 2024).

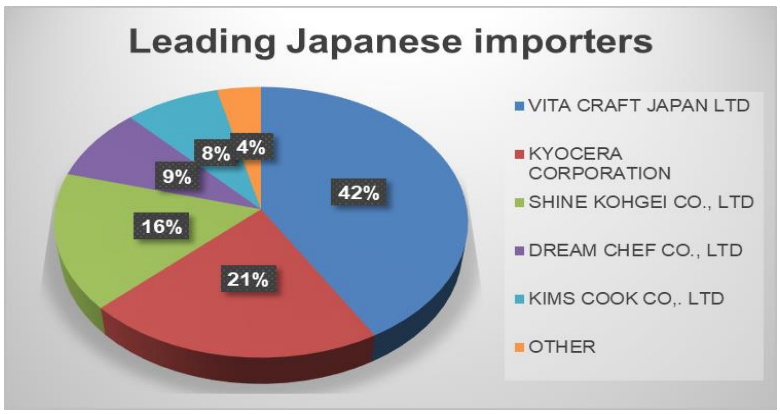

Figure 7: Japan's major importers

Source: Tradesparq (2024)

In Japan, Vita Craft Japan Ltd is the largest importer, commanding an impressive 42% of the market share. Kyocera Corporation follows with a 21% share. Shine Kohgei Co., Ltd and Dream Chef Ltd account for 16% and 9%, respectively, and Kims Cook Co., Ltd, with an 8% share, rounds out as another notable player in this market. Other importers account for 4% of the total market share, showing that while a few companies stand out, there is still considerable diversity among Japanese importers (Tradesparq, 2024).

5. Sunhouse's sale contract sample for exporting cookware

SALE CONTRACT

No: 09-2023/WINGS CORPORATION - SUNHOUSE

Date: September 23rd, 2023

This sale contract is made and entered into 23rd September 2023 (the "Effective Date"), by and between SUNHOUSE GROUP CO. (the "Seller") and IRIS OHYAMA INC. (the "Buyer"), also individually referred to as "Party", and collectively "the Parties".

Both Parties declare an interest in the sale and purchase of pangasius under the present contract and hereby agree to the terms and conditions as follows:

A. SPECIFIC CONDITIONS

The present contract of sale will be governed by these Specific Conditions (to the extent that the relevant boxes have been completed) and by the ICC General Conditions of Sale (Manufactured Goods Intended for Resale) which constitute part B of this document.

B. PARTIES

Seller Name: ***SUNHOUSE GROUP CO., JSC***	Buyer Name: ***IRIS OHYAMA INC.***
Address: No 135 Nguyen Thai Hoc Str, Dien Bien Phu Ward, Ba Dinh Dist, Hanoi, Vietnam	Address: 8th floor, Iris Aoba Building Chuo, Aoba-ku Sendai, Miyagi, 980021 Japan
Vietnam Tel: +84 24 3736 66 76	Tel: +081-22-221-2109
Fax: (84.277)3891062	Fax: +081-22-216-4858
Email: info@sunhouse.com.vn	Email: info@iwatsuki.co.jp
Represented by Mr. Nguyen Dai	Represented by Mr. Akihiro

Thang Ohyama

The Parties agree to the terms and conditions as demonstrated by their signatures as follows:

Seller Signature	**Buyer Signature**
(Signed, full name written and sealed)	*(Signed, full name written and sealed)*

A1. Goods Sold

Description of Goods
Under the terms and conditions of this Contract, the Seller undertakes to provide, and the Buyer to purchase the following product:

Product Trade Name: Non-Stick Aluminum Frying Pans

HS Code: 76151090

Quality

Product Form: anodized aluminum, hard-anodized finish

Size: 38 x 21 x 9 (cm)

Pan coating: Double-layer non-stick Whitford

Handle: Bakelite plastic handle

Induction Compatible: Yes

Country of Origin: Vietnam

Certifications: ISO 9001, BSCI

Products meet the standards of TCVN 12223:2018 proposed by the Directorate for Standards, Metrology, and Quality, and published by the Ministry of Science and Technology on aluminum pans for exporting.

Indicators:

Overall dimension	Length: 200 mm to 600 mm. Width: 150 mm to 500 mm. Height: 60 mm to 400 mm.
Weight	Household used: 1 - 5 kg Industrial used: 6 kg min
Oil/fat temperature	50°C - 250°C (±5°C)
Minimum oil/fat capacity	0.5 liters/pcs min
Maximum oil/fat capacity	3 liters/pcs max
Maximum frying capacity	0.5 kg/pcs min 1.5 kg/pcs max
Specified frying capacity	60%/pcs min 80%/pcs max
Heating-up time	30 seconds min 5 minutes max
Operating time	3 minutes/0.1kg min 10 minutes/0.1kg max
Frying results	Food must be evenly cooked, achieving a golden brown color. No undercooked or burnt areas. The surface must reach the desired crispiness according to the type of food.
Overflow prevention and efficiency of the oil/fat filter	No oil/fat overflow is allowed when the fryer operates at maximum capacity. The filter must retain at least 90% of excess oil particles during filtration.

Quantity and Packing

Total Quantity: 10,000 pans

Net Weight: 130 kg per 100 pans (±5% at the Seller's option)

Packing: Each pan individually boxed with protective padding, 5 sets per master carton.

A2. Contract Price (Art. 3)

Currency: US Dollar (USD)

Unit Price: USD 20.00 per pan

Amount in Numbers: USD 200,000 (±5%)

Amount in Letters: Two hundred thousand United States dollars (more or

less five percent).

The price is understood under FOB Hai Phong Port, Incoterms® 2020.

A3. Delivery Terms

Delivered Term Applied: FOB Hai Phong Port, Incoterms® 2020

Port of Loading: Hai Phong Port, Vietnam.

A4. Time of Delivery

Time of Delivery: Within 30 days from the Effective Date.

A5. Payment Conditions

Payment shall be made by 100% irrevocable, at sight Letter of Credit in United States Dollars for the total contract value in favour of the Seller, issued through Bank of America, and opened to Vietnam Technological and Commercial Joint Stock Bank - Techcombank.

The L/C shall be issued at least 30 days before shipment and remain valid for 60 days. The Seller shall receive payment from Bank of America upon presentation of the following documents:

(a) The Seller's signed commercial invoice: 03 originals made to order and blank endorsed.
(b) Full set of clean on-board Bill of Lading: 03 originals made to order and blank endorsed.
(c) Packing list.
(d) Original Certificate of Origin.
(e) Original Signed Certificate of Quality and Quantity.

A6. Other

By signing this contract, previous correspondence and negotiations connected herewith shall become null and void.

This contract is made in English in 06 originals, 03 of which are retained by each Party.

6. Business process analysis of the export process of cookware from Vietnam to Japan

6.1. *Use Case Diagram of cookware export from Vietnam to Japan*

This section uses a use case diagram (Figure 8) and related activity diagrams (Appendix C) to show the export process of cookware from Vietnam to Japan. The figure encompasses all aspects, including financial, regulatory, transportation, and commercial processes. The primary sub-processes are classified under "Ship," while the basic business procedures follow the UN/CEFACT Buy-Ship-Pay model. As

shown, the process involves ten players and nine processes.

It is done using FOB Incoterms® 2020.

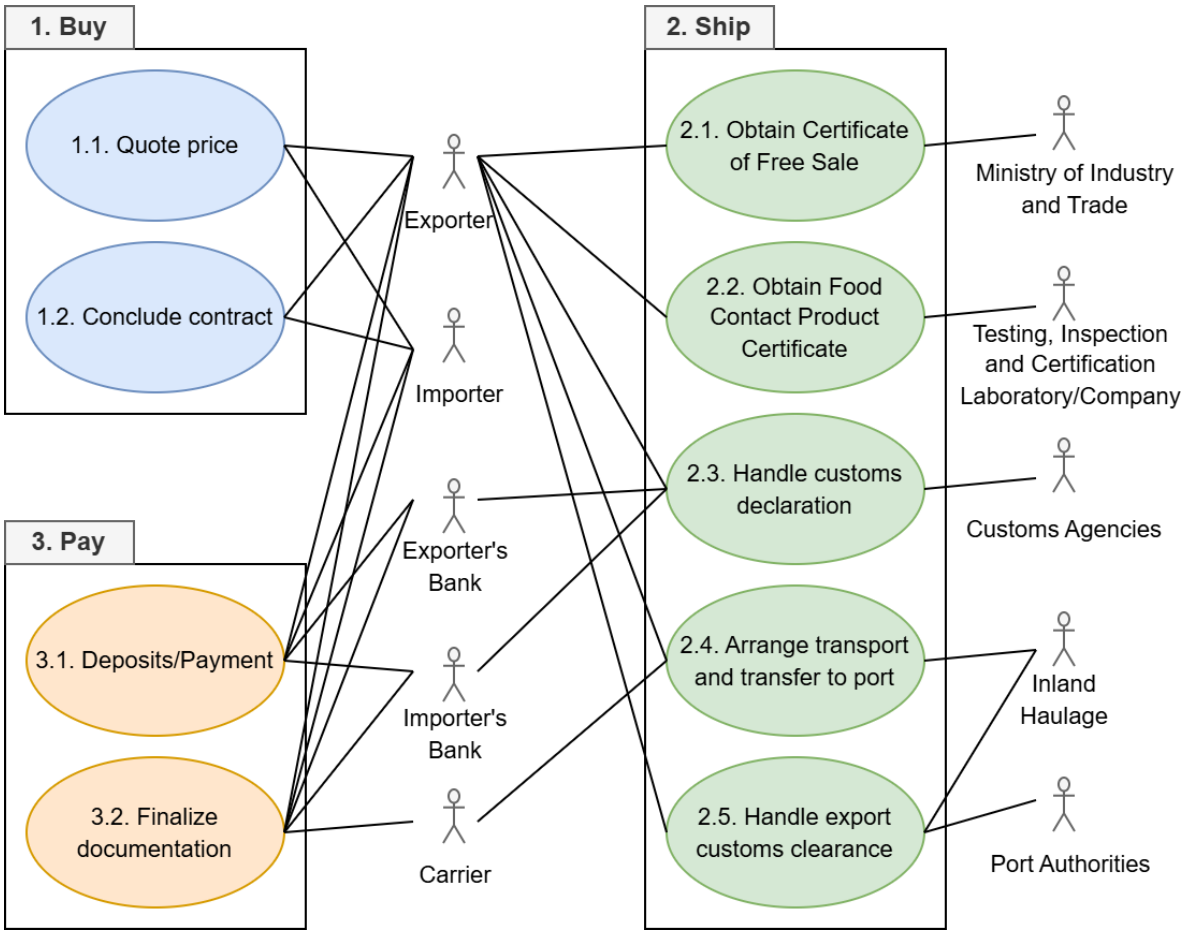

Figure 8: Use Case Diagram for the cookware export process from Vietnam to Japan

6.2. Process Area 1: Buy

6.2.1. Quote prices

After receiving the Importer's quotation, the Exporter ensures all necessary information is included and identifies the product type (Current/ Commercial/ Manufactured) to route the request appropriately. The Exporter then finalizes the Bill of Materials (BOM), costing with factory coordination, and net pricing and gross selling price calculations based on production and business costs, costs under trade conditions, and market information. Finally, the Exporter emails an official quotation and saves it with a scanned version on the server. This process takes 2 to 7 working days based on product complexity.

6.2.2 Conclude contract

As referenced from SUNHOUSE GROUP CO., in case of consensus between both parties, the Exporter drafts a commercial contract with terms of the agreement from prior negotiations, following FOB Incoterms 2020. The contract specifies information

about the product, quality, quantity, price, payment terms, and other legal requirements.

- Both parties sign the contract and comply with the specified timeline.
- The Exporter saved the contract for record-keeping.

6.3. Process Area 2: Ship

The shipping process for SUNHOUSE GROUP CO.'s cookware exports consists of five key steps: **obtaining a Certificate of Free Sale, securing a Food Contact Product Certificate, handling customs declarations, arranging transport and transfer to the port, and completing export customs clearance**. Each step ensures compliance with regulatory requirements and facilitates smooth international shipments.

6.3.1. Obtain Certificate of Free Sale

To obtain a Certificate of Free Sale (CFS) for exporting cookware, SUNHOUSE GROUP CO. must apply to the Ministry of Industry and Trade (MIT). The exporter must be a registered firm with a signed contract and export products listed under Appendix I of Circular 31/2022/TT-BTC. Required documents include a written request in Vietnamese and English, business registration certificates, a list of manufacturing facilities, and cookware standard declarations. MIT reviews the application, verifies compliance, and may request additional documents or conduct inspections. If approved, the CFS is issued within seven days; otherwise, MIT provides a written explanation for rejection.

6.3.2. Obtain Food Contact Product Certificate

To obtain a Food Contact Product Certificate, SUNHOUSE GROUP CO. must apply with product details and required documents to an inspection lab such as SGS Vietnam or JIS. The certifying body reviews the documents, conducts product tests for safety and performance compliance, and performs an on-site audit of quality control systems to ensure compliance with QCVN 12-3:2015/BYT issued under Circular No. 35/2015/TT-BYT by the Ministry of Health. Based on the evaluation, certification is granted, allowing the use of the SGS or JIS mark. The process takes 15 to 30 days.

6.3.3. Handle customs clearance for exports

To handle customs declaration, SUNHOUSE GROUP CO. submits export documents, including the customs declaration form, B/L, sale contract, CO, commercial invoice, CFS, packing list, and Food Contact Product Certificate via the VNACCS/VCIS system. Customs agencies review the submission and classify the goods into Green, Yellow, or Red Channels. With SUNHOUSE GROUP CO.'s solid prior compliance, the goods are still classified into Yellow Channel of medium-risk

goods due to the scrutiny on food-contact products. The exporter fulfills the procedures, pays taxes through the system, and obtains a "Customs Clearance Decision." The process takes approximately three days.

6.3.4. Arrange local transport to the port and make delivery

SUNHOUSE GROUP CO. coordinates transport and port transfers by reserving cargo space with the importer's designated carrier, reviewing and approving the bill of lading (B/L), and scheduling container pick-up and delivery. The carrier supplies empty containers to the exporter, who arranges inland haulage through contract negotiations. Once finalized, the carrier loads and transports the containers to the port. This process takes approximately 10 days and results in a signed transport contract, an issued B/L, and cargo delivery as agreed.

6.3.5. Complete the export customs procedures

To handle export customs clearance, SUNHOUSE GROUP CO. ensures cargo is ready and customs declaration documents are submitted. The exporter arranges inland haulage to transfer containers to the port, secures port entry permission, and submits required documents. Port authorities inspect the containers, allocate storage, and prepare the Equipment Interchange Receipt (EIR). The cargo is then moved to the sub-gate, loaded onto the vessel, and cleared for export, officially confirmed "Completed Customs Clearance". The process takes approximately one day.

6.4. Process Area 3: Pay

6.4.1. Deposits/Payment

After the contract signing, the Exporter and the Importer confirmed the Letter of Credit (LC) payment methods and details, including receipt of deposits/payments/LC, customer information, contract number, sales order (SO), LC copy, and contract copy.

First, the Exporter coordinates the delivery of goods to the customer as per the contract. Then, the Exporter completes original documents as required by the payment terms, including Invoice, Packing List, BL (Bill of Lading), or other relevant documentation (if necessary). The timeframe for completing documents is based on the LC terms, including the number of codes in the shipment. Afterward, the Exporter submits original documents to the bank for LC in half a day. The payment is confirmed after half a day.

- Payment before goods receipt: The Exporter sends a copy of the documents to the Importer and requests payment of the remaining amount. After receiving the payment, the original documents are sent to the Importer.
- Payment after goods receipt: The Exporter sends the original documents to the Importer.

6.4.2. Finalize documents

After the delivery, the Exporter spends 7 to 11 working days based on complexity to finalize documentation.

- The Exporter prepares the Invoice and Packing List based on the delivery details and submits the required documents, including the Packing List, Container details, and Bill of Lading type, following the Letter of Credit terms before sending them to the Importer.

- The Exporter verifies the draft of the Bill of Lading again with the Carrier, who then prepares three sets of original and copied documents and archives one set.

7. Bottlenecks and reasons

7.1. Extended processing times by government authorities

Both pre-clearance procedures and post-clearance controls still require manual intervention, especially for low-value shipments and specialized goods such as cookware. This slows processing times, as customs officials conduct time-consuming verifications without streamlined procedures. Additionally, unclear or inconsistent use of HS codes for product classification creates confusion and delays customs declarations. The system also lacks integration with logistics service providers, real-time cargo tracking, and flexible risk management, contributing to inspection delays and clearance bottlenecks. For cookware exporters, this results in shipment postponements, higher transport and warehousing costs, and increased risk of product degradation, especially for coated or enameled goods, ultimately reducing customer satisfaction and export competitiveness. Although Vietnam and Japan are parties to trade agreements like VJEPA and AJCEP, these do not include mutual recognition of standards for food-contact materials. As a result, Vietnamese exporters must separately comply with Japanese technical regulations, creating non-tariff barriers and adding to the compliance burden, particularly for SMEs.

7.2. Inadequate quality control measures and facilities

Quality assurance often relies on manual processes, which increase the risk of errors and non-compliance with stringent Japanese requirements. Limited testing capabilities for heavy metals such as lead and cadmium in food contact materials can result in delays or rejection of shipments. Furthermore, outdated or insufficient testing equipment may fail to detect non- conformities that are critical to Japan’s rigorous standards under the Food Sanitation Act. Many facilities lack advanced technology to conduct comprehensive migration tests, including those mandated by Japan’s Positive List System. Moreover, inconsistent training for personnel further undermines adherence to strict export guidelines. These shortcomings not only slow the certification process but also diminish Vietnam’s competitiveness in the Japanese market, risking reputational damage and reduced market access.

7.3. Inefficient & Insufficient digitized business-supporting system

Some online systems remain inefficient and poorly implemented despite constant improvement efforts. For example, while the Vietnam Ministry of Industry and Trade's public service portal includes a section for filing CFS applications, the system is often non-functional, and some features appear to be inaccessible when clicked. This creates confusion for businesses, which not only lengthens the document acquisition process but also increases the likelihood of errors. Even though Vietnam has implemented online public administrative services (OPAS), many businesses report they still have to visit government offices to complete paperwork because the online systems are not fully optimized. According to a study published in Vietnam Law Magazine, the development of OPAS is a top priority in the country's digital transformation strategies, yet actual usage remains low. At the 9th meeting of the National Committee on Digital Transformation in July 2024, it was reported that only 48% of procedures eligible for full online processing are available, and the submission rate for fully online provincial-level procedures is just 17% (Vietnamese Law Magazine, 2025). Moreover, many processes (e.g., Food Contact Product Certificate and the Bill of Lading) remain entirely offline, requiring businesses to physically submit paper documents to government agencies.

8. Recommendations

8.1. For Vietnamese traders

8.1.1. Digital transformation and AI in enhancing business processes and export competitiveness

According to Wang & Chen (2022), digital transformation can enhance internal control, which influences not only business operations but also their long-term development potential. Besides, digital transformation tools such as e-business, e-commerce, and e-marketing can contribute positively to export management efforts, especially for SMEs (Dethine et al., 2020). E-commerce and e-marketing tools can enhance supply chain efficiency, improve brand visibility, lower technological barriers and reduce entry costs into new markets (Pereira et al., 2022; Eid et al., 2020). Similarly, e-business tools also make it easier to obtain knowledge about overseas markets and encourage better stakeholder cooperation. (Cassetta et al., 2019; Costa et al., 2020).

In the context of digital transformation, AI has emerged as a key tool in helping businesses streamline operations by automating or assisting in tasks like document processing (e.g., invoices, B/L, L/C), thus reducing manual labor, minimizing errors, and accelerating transactions (Ozturk, 2024). It also enhances risk management by analyzing large volumes of financial and operational data to detect fraud and assess partner creditworthiness (Pathak et al., 2023). Additionally, by forecasting market trends, identifying optimal routes, anticipating disruptions, and helping firms manage

inventory, demand, and transportation more effectively, AI can provide great assistance in supply chain optimization (Praveenadevi et al., 2023; Vaka, 2024).

8.1.2. Improving quality control infrastructure

To meet Japan's strict import standards, Vietnamese exporters must invest in improving their quality control infrastructure, especially in advanced technology. For cookware exports specifically, partnering with private laboratories or establishing in-house testing systems can ensure products adhere to Japan's Positive List System and avoid costly shipment rejections. Furthermore, it is important to provide quality assurance teams with advanced knowledge of Japanese export standards (e.g. Food Sanitation Act) through training programs. Regular training on best practices and updates in Japanese regulations can empower teams to address potential quality issues, which boosts the internal efficiency and reassures buyers of the exporter's commitment to maintaining high standards. Finally, Vietnamese exporters should attain recognized certifications like ISO 17025 for testing and calibration labs.

8.2. For the Vietnamese government

8.2.1. Modernizing customs procedures through digitization

To enhance trade efficiency in Vietnam's cookware exportation to Japan, the Vietnamese government, particularly the General Department of Vietnam Customs, should prioritize the optimization and expansion of the VNACCS/VCIS system for digital customs clearance. By minimizing manual procedures and accelerating the automation of document submission and processing, cookware exporters can significantly reduce both time and transactional costs. The advanced technology-driven development of a centralized digital platform (as known the Vietnam National Single Window) would enable exporters to submit, track, and manage customs-related documents more effectively, while allowing relevant agencies, such as Vietnam Customs, the Ministry of Industry and Trade, and specialized inspection bodies, to access, verify, and approve documentation in real time. Additionally, the platform could provide temporary and secure access for Japanese importers to verify shipment documents or directly receive approved customs records from the system. This measure would strengthen transparency, build importer confidence, and facilitate smoother coordination between Vietnamese exporters and Japanese partners.

8.2.2. Upgrading logistics infrastructure to facilitate trade

Upgrading logistics infrastructure plays an important role in enhancing the efficiency of Vietnam's cookware exportation to Japan, where strict delivery standards make supply chain efficiency vital. Beyond port and cold chain investments, improving inland transport, especially road and rail links to key export hubs is essential, as many seaports like Cat Lai, Hai Phong, or Cai Mep – Thi Vai suffer from poor connectivity to major ports, causing costly delays and congestion.

To address these issues, the government should prioritize practical infrastructure solutions such as expanding dedicated freight corridors, modernizing rail systems for container transport, and developing Inland Container Depots (ICDs) near production clusters. Such measures will reduce the time and cost of moving cookware products from factories to ports, ensuring goods ship on schedule to Japanese buyers. Furthermore, by improving multimodal connectivity and optimizing pre-shipment logistics, Vietnam can reduce reliance on last-minute air freight or emergency shipping, which often inflate costs. More importantly, these efforts will demonstrate Vietnam's commitment to trade reliability and efficiency, two factors highly valued in the Japanese market. As a result, Vietnam will not only improve export performance but also strengthen its position as a trusted supplier of cookware in the global supply chain.

9. Conclusion

After analyzing the export process of cookware products between SUNHOUSE GROUP CO. and IRIS OHYAMA INC., we have pointed out several bottlenecks hindering Vietnamese exporters' full capacity, including long processing time by the government, lack of quantity control measures and facilities, and insufficient and inefficient digitized system. Thus, we recommend that Vietnamese traders should enhance efficiency through the use of digital transformation tools, especially AI-powered automation, and improved quality control. At the same time, the government should digitise customs, upgrade logistics, and develop a more comprehensive legal framework for blockchain integration to strengthen Vietnam-Japan trade.

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APPENDIX

Appendix A - Glossary

AI	Artificial Intelligence
B/L	Bill of Lading
BPA	Business Process Analysis
CFS	Certificate of Free Sale
CIF	Cost, Insurance, and Freight
Co., Ltd.	Company Limited
C/O	Certificate of Origin
DAP	Delivered at Place
FOB	Free on Board
GDP	Gross Domestic Product
HS	Harmonized System
ISO	International Organization for Standardization
JSC	Joint Stock Company
L/C	Letter of Credit
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
US	United States
USD	US Dollar
VNACCS/VCIS	Vietnam Automated Cargo and Port Consolidated System

Appendix B – Vietnam's cookware trading partners

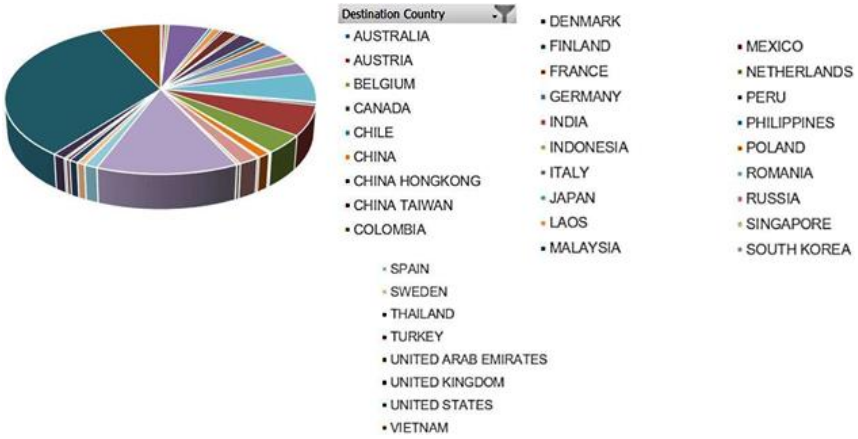


Figure 9: Vietnam's trading partners

Source: Tradesparq (2024)

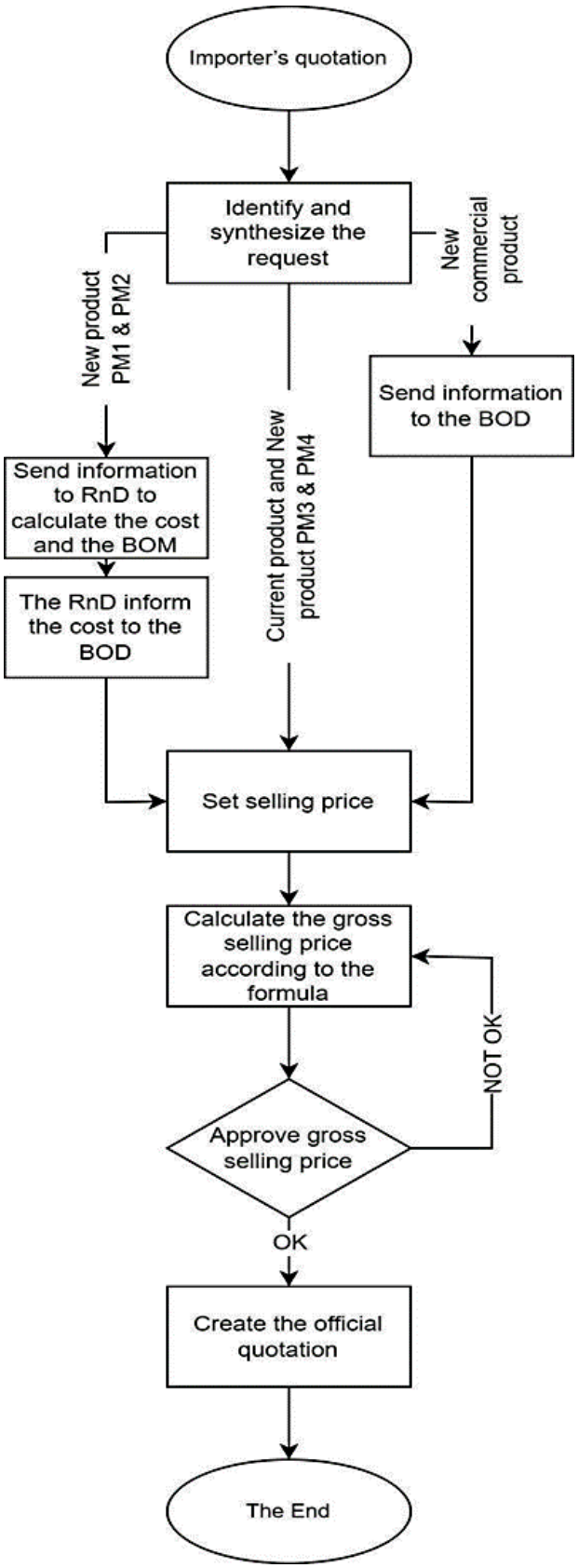
Table 1: Total value of Vietnam's exported cookware

Source: Tradesparq (2024)

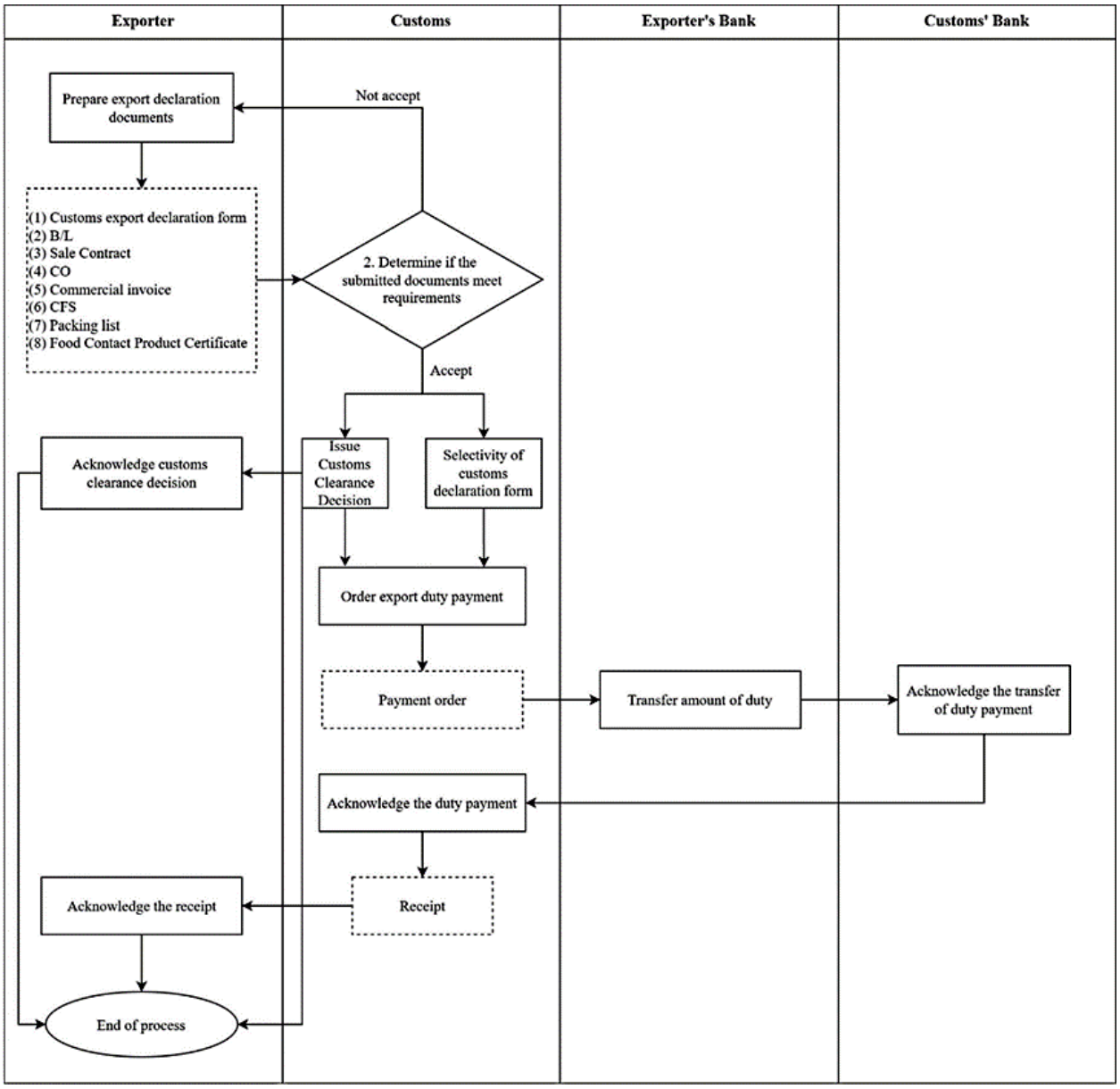
Country	Total value (USD)
United States	25864416.06
South Korea	12307427.2
Mexico	7978199.41
Netherlands	4722379.97
Denmark	4631966.2
Japan	4086680.07
Russia	2307427.2
Germany	2098427.96
Canada	1871981.19
Italy	1768986.68
Others	10545439.21

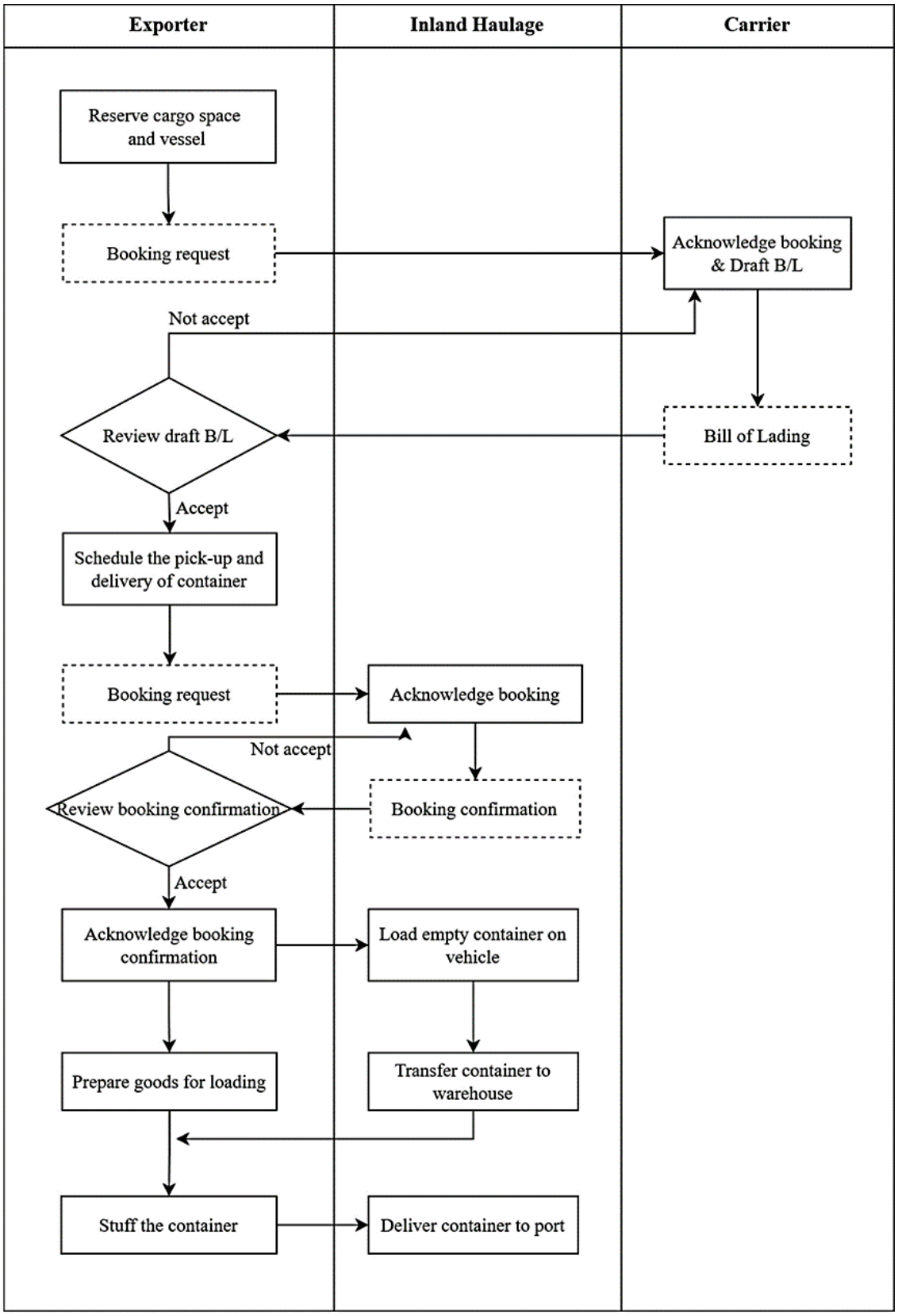
Appendix C – Activity Diagram of Process areas

PROCESS AREA 1: BUY



PROCESS AREA 2: SHIP




Exporter
Inland Haulage
Carrier
Reserve cargo space and vessel
Booking request
Acknowledge booking & Draft B/L
Not accept
Review draft B/L
Bill of Lading
Accept
Schedule the pick-up and delivery of container
Booking request
Acknowledge booking
Not accept
Review booking confirmation
Booking confirmation
Accept
Acknowledge booking confirmation
Load empty container on vehicle
Prepare goods for loading
Transfer container to warehouse
Stuff the container
Deliver container to port

PROCESS AREA 3: PAY