VAASAN AMMATTIKORKEAKOULU
UNIVERSITY OF APPLIED SCIENCES

Hoang Phuoc Vu

VIETNAM'S LOGISTICS COST PARADOX
CAUSES AND OPTIMAL SOLUTIONS

Exclusively for the agricultural and seafood industry

Business Economics
2021

VAASAN AMMATTIKORKEAKOULU
UNIVERSITY OF APPLIED SCIENCES
Bachelor of Business Administration, International Business

ABSTRACT

Author	Hoang Phuoc Vu
Title	Vietnam's Logistics Cost Paradox – Causes and Optimal Solutions.
Year	2021
Language	English
Pages	31 + 2 Appendices
Name of Supervisor	Teemu Myllylä

Logistics cost in Vietnamese agricultural and seafood sectors accounted for 40-60% of the price, which was considered high. At the same time, transporting costs of goods within the country was 2-3 times more expensive than exporting. That kind of paradox prevented Vietnamese businesses from competing in their market. This thesis studied logistics cost components, then analyzed and proposed optimal approaches in cutting costs of logistics in Vietnam. The primary purposes of the study were to figure out a comprehensive explanation of what causes the incongruity situation and build ideal resolutions.

Different definitions of logistics and logistics cost were used to support the thesis. Data were collected by using the qualitative method. The narrative approach was the main method for rallying information from books, articles, conferences, interviews, and newspapers. The thesis had two exclusive interviews with two leaders from two big companies: Le Van Quang - CEO from Minh Phu Corp., and Nguyen Thi Hoai from Vinafood II. The target group studied was the current logistic facility and big players and the government's role in improving the internal logistic system.

The research results unveiled different aspects and the real root of the logistics costs paradox in Vietnam, especially in the agriculture sector. The solutions were also proposed. Further research for how to apply it might improve the logistics system. The companies operating in the agriculture and seafood sector would benefit from this study especially.

Keywords Logistics costs, value chain, Vietnam's agriculture, solutions

CONTENTS

LIST OF FIGURES AND TABLES

LIST OF APPENDICES

1 INTRODUCTION

This section will include background information, including an overview of Vietnam's current logistics situation, as well as an explanation of why the subject is worth studying. Additionally, the organizing of the thesis process is discussed, as is the content of all tasks assigned to complete the thesis on a broad level.

1.1 Vietnam Logistics Industry

Following the passage of the Commercial Law in 2005, logistics services were officially classified as commercial activities operated by the Vietnamese government (Vietnam Commercial Law 2005, 2021). Vietnam's logistics industry proliferated between 1997 and 2007, owing to the country's favorable geographic position for foreign shipping. Following accession to the WTO, the sector expanded at a compound annual growth rate of approximately 16% between 2018 and 2024 and is expected to reach $113 billion in industry net worth by 2023 (WIRE, 2021). Vietnam was ranked 39th out of 160 countries on The World Bank's Logistics Performance Index in 2018, with a cumulative score of 3.27, up 25 places from 64th in 2016. The 2018 LPI assigns a ranking to countries based on their ability to transport goods across and within borders efficiently. The World Bank also stated that Vietnam, as a developing economy, together with Cote d'Ivoire, India, and Indonesia, protruded as top performers (Home | Logistics Performance Index, 2021).

Vietnam has surpassed Indonesia and Malaysia to become the ASEAN region's third-best logistics performer, behind Singapore and Thailand. Despite the potential for expansion, Vietnam's logistics industry has comparatively high costs, accounting for approximately 25% of GDP, although its contribution to national income remains modest, at just 4-5% of GDP. Logistics costs account for 95% of the product's worth. (Vietnam Logistics Industry in 2020, 2021.)

In general, Vietnam's logistics industry is fractured and insufficient to satisfy rising market demands, as 90% of the market is made up of small businesses with less than VND10 billion (approximately 36,000 €) in net worth (Google Finance, 2021). Freight shipping businesses account for more than half of the overall market and employ the most people of any other company. Despite the small number of businesses, postal and delivery operations employ a sizable workforce, while the warehousing and storage industry is less

labor-intensive. About 70% of organizations that offer transportation support services are freight forwarding and logistics service providers, while just 20% are transportation service providers. Enterprises engaged in road transportation account for the largest share, accounting for more than 90%. Owning by the domination of major state-owned companies, the air and rail transport markets have a limited number of enterprises. Road transport dominates the logistics market, accounting for more than 76 percent of overall freight volume. (Vietnam Logistics Industry in 2020, 2021.)

During the COVID-19 epidemic, revenue from light domestic trucks fell by 20% to 30%, while revenue from heavy trucks fell by 40% to 50%. After ten years of insufficient spending, the railway transport sector's market share in Vietnam has decreased from 1.7 percent in 2007 to 0.36 percent in 2020. Home-to-home delivery has been implemented since August 2019 to capitalize on the developing demand. In the first half of 2019, inland waterways transported 147.8 million tons, a 5.1 percent increase in terms of transportation. As a result of the pandemic, shipping lines cut off access to all roads from China, South Korea, and Japan, affecting shipping schedules, business plans, and service quality. In Vietnam, airplanes carry just 0.23 percent of freight. However, this figure represents 25% of overall exports. During a pandemic, freight transportation was emphasized to compensate for the lack of passenger travel. The freight forwarding segment of the logistic industry is expected to develop at a 14.2 percent compound annual growth rate until 2022. (Vietnam Logistics Industry in 2020, 2021.)

The growing popularity of online shopping is one of the primary drivers of the freight forwarding industry's growth, especially in express distribution. The demand for warehouse space in Vietnam will continue to grow significantly. In light of the current pandemic, he forecasted that the Vietnamese warehousing markets would develop at a positive CAGR of 13.4 percent until 2022. Currently, warehouses situated in urban areas are needed to satisfy the needs of last-mile distribution service providers. Vietnam's logistics operations are expected to be impacted at least until the end of Q3 2021. Regardless, the industry will continue to gain in the long run from the US-China trade war, Mergers and Acquisitions (M&A) developments, and the economy's steady growth. (Vietnam Logistics Industry in 2020, 2021.)

1.2 Logistics in Vietnam's Agricultural & Seafood Industry

The country currently has five central agricultural development regions: the Northwest, the North Central, the Central Highlands, the Southeast, and the Mekong River Delta (accounting for 34.1 percent of the national output). According to a study released in early 2019 by the Ministry of Industry and Trade, vegetables and fruits, and seafood were the top 13 agricultural products in Vietnam.

1.2.1 Traits of Logistics for Agricultural Products

The preservation of agricultural products is characterized by many features, including limited using time, perishability, seasonality, low-temperature storage requirements, and thermoregulatory variations between agricultural products and across several cycles of a single crop. Thus, agricultural logistics must be incorporated in the chain, from production to harvesting, refining, packing, shipping, transporting, and supplying to the end customer. As a result, companies that handle agricultural commodity logistics must be familiar with the preferences of the customer's sector to provide appropriate and secure services.

Indeed, initiatives aimed at developing agricultural supply chains or commodity value chains are being increasingly valued and centered on system integration, emphasizing the construction of a coherent network spanning production, harvesting, manufacturing, warehousing, and transport, as well as an emphasis on and investment in cold chain logistics systems. These measures are essential to mitigate risks and boost the value of agricultural products.

1.2.2 Cold Chain Logistics System

An analysis released by CEL Consulting aims to quantify food loss and cold chain use in Vietnam, with the research focus including cultivation, post-harvest manufacturing, warehousing, and transporting fruit, vegetables, meat, and seafood to the point of delivery. The findings indicated that 25.4 percent of agricultural goods were destroyed prior to being transported to manufacturing plants or distribution centers on average. Additionally, CEL research found that only 14% of Vietnamese factories are connected to cold chain solutions, with the seafood industry accounting for 42.1% of total producers. (Mattos and Brun, 2018.)

Currently, the utility cold storage facility operates at a 90 percent utilization rate, indicating that demand for cold storage is emerging. The market's leading providers of cold utility storage include the following: Swire Cold Storage Vietnam, Lotte Logistics Vietnam, Konoike Vina, CLK Cold Storage, etc.

In 2020, Vietnam will have approximately 1,200–1,300 supermarkets, 180 trade centers, and 157 wholesale outlets. As a result, the "Distribution Center," which includes cold storage, must expand in size and capability to satisfy the retail system's expansion demands. However, Vietnam's cold storage industry remains fragmented; even companies with a sizable market share such as Emergent Cold, Minh Phu Gemadept, ABA, Hoang Phi Quan, Lotte, An Viet Cold Storage, Phan Duy, Satra, Meto, Alpha, and Transimex serve a minimal segment of the market. They do not consolidate many cold storage facilities. (Logistics Vietnam in Agriculture Report 2019, 2019)

Apart from the growing need for cold storage to service the domestic retail market, there is a growing need for cold transportation to fit into the supply chain. Several shipping firms are now investing in cold transport. Several representative firms include ABA, ITL, Binh Minh Tai, and Agility. ABA Cooltrans (12 percent of refrigerated transport in 2018), a supplier of temperature-controlled shipping for large modern retailers, has built a fleet of 200 temperature-controlled trucks and cold storage of 22,000 pallets to satisfy the increasing demand for cold and chilled food.

1.2.3 Operational Status of Agricultural Products Logistics Service

To determine the current condition of agricultural logistics, the Vietnam Logistics Research and Development Institute (VLI) and the University of Transport of Ho Chi Minh city conducted a direct survey of logistics enterprises. Logistics companies serve various consumer groups, followed by the fruits industry at 57% of respondents, and seafood and imported agricultural goods at 52% and 47%, respectively (Figure 1).

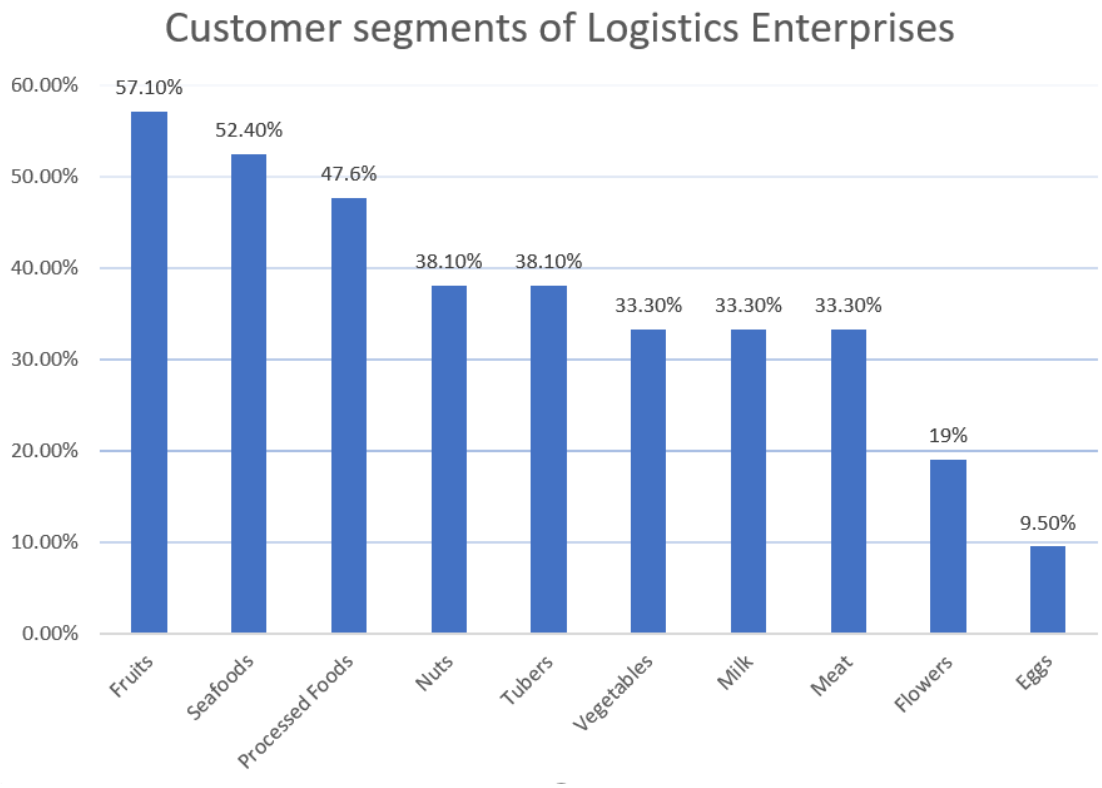

Figure 1 Percentage of Logistics Enterprises by Agricultural product. *Source: Survey results of the research group of the University of Transport of Ho Chi Minh City and the Vietnam Logistics Research and Development Institute (VLI). Translator: Phuoc Vu.*

1.2.4 Modes of Transport in Logistics for Agricultural Products

The requirements for agricultural and seafood preservation have a significant impact on the mode of transportation chosen. Road transport is the preferred mode of transport for company owners, as railways are underdeveloped, and inland waterways are more time-consuming. This criterion becomes much more pressing for perishable commodities, such as agricultural products. Anticipating this situation, trucking companies expand rapidly with a fleet of vehicles to satisfy customer needs. By supplying a range of vehicles of varying tonnages, cold vehicles, and other specialized vehicles, trucking companies can quickly respond to customer shipping demands.

When asked the mode of transport, they choose cold commodities, 74.1% and 70.4% of businesses, respectively, preferred land and sea. Answer showed about 20% of companies select inland waterway transportation (IWT) as their mode of transport, while just over 7% choose railway. This data illustrates the fact that IWT is still in its infancy, as is the

railway network. However, almost 60% of businesses indicated that they use a combination of modes of transport to serve agricultural goods (Figure 2.)

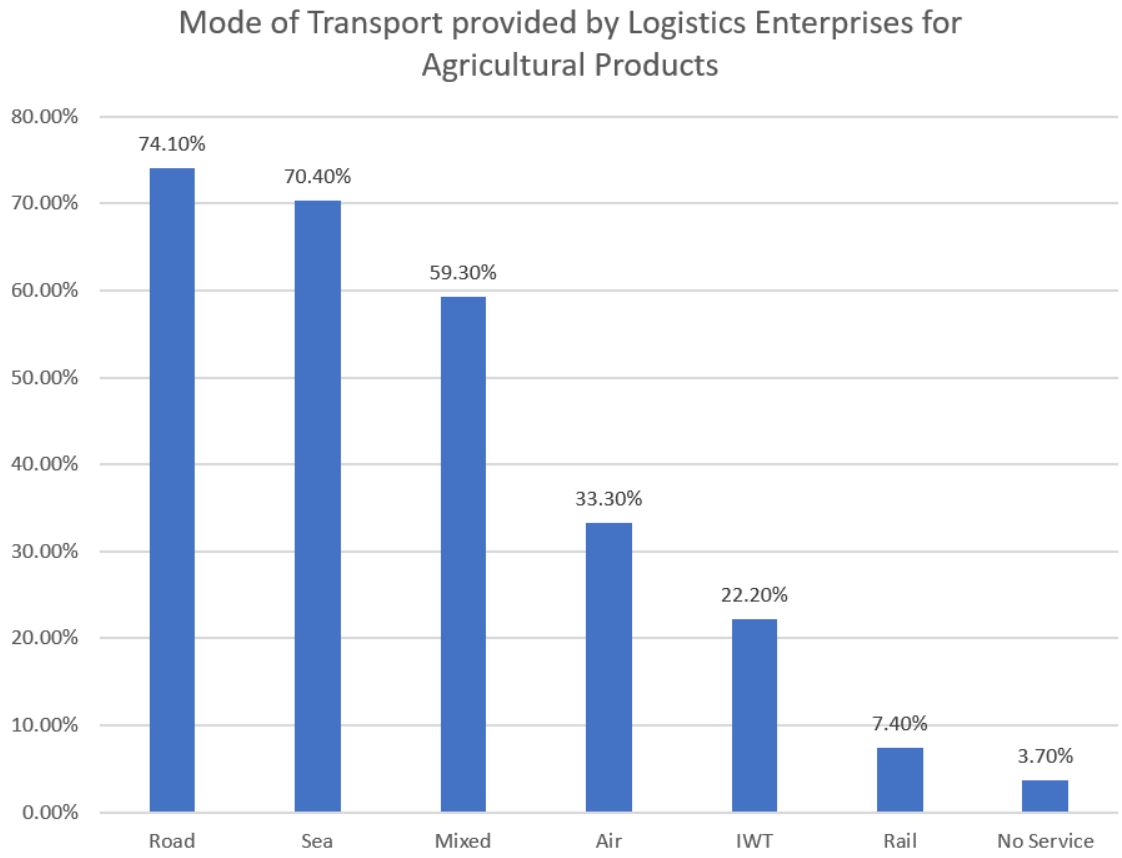

Figure 2 Mode of transport provided by logistics enterprises for agricultural products. *Source: Survey results of the research group of the University of Transport of Ho Chi Minh City and the Vietnam Logistics Research and Development Institute (VLI). Translator: Phuoc Vu.*

1.3 Problem Studied

In general, the cost of logistics in Vietnam and the agricultural and seafood industries is exorbitantly high, fluctuating between 25% and 30% in price (while the regular rate is only 10-15 percent). Additionally, the cost of transportation within the nation is considerably higher than exporting such goods. Indeed, according to Minh Phu Seafood Corporation officials, the cost of shipping shrimp within Vietnam is several times greater than the cost of transporting goods abroad. A shrimp container from Vietnam to the United States costs just 41 million VND (approximately 1500€). In comparison, a container from Vietnam to Hamburg port costs 41 million VND (approximately 1500€). A container

from Vietnam to Japan costs 16 million VND (approximately 600€), but the cost from Ho Chi Minh City to Hanoi is 80 million VND (approximately 3000€). ('Vua tôm' Việt Nam nói về nghịch lý ngành logistics: Cùng 1 container, vận chuyển từ Việt Nam sang Mỹ hết 41 triệu nhưng từ TPHCM ra Hà Nội hết 80 triệu | Tin tức doanh nghiệp niêm yết | | CafeF.vn, 2021). This paradox distorts the productivity of domestic agriculture and seafood enterprises. This further contributes to national food shortages, as businesses and corporations choose to sell foods rather than transport them domestically. Additionally, unequal distribution and scarcity of a commodity in a given region will result in speculation and accumulation, all of which are detrimental to the economy. This research aimed to contribute to addressing those issues.

1.3.1 Aim of The Research

This study aims to determine what triggers the preceding paradox and propose systematic solutions that can be used realistically in future experiments and applications.

Two analysis structuring issues must be identified:

1. What factors contribute to Vietnam's Logistics Cost Paradox?
2. How can systematic solutions be designed and deployed in Vietnam after analyzing the causes and existing factors?

1.3.2 Scope

This thesis examines the relationship between logistical expertise, logistics cost theory, and Zhao and Tang's strategy for logistics cost efficiency. The research is primarily focused on warehousing and transportation, specifically on cool transports and modes of transport and government policy and planning for the national logistics industry.

1.3.3 Research Limitations

Numerous difficulties arise when examining various facets of the logistics industry. Firstly, it necessitates that the author possesses extensive knowledge of the logistic industry in general and issues pertaining to logistics costs in particular. Additionally, cross-knowledge of the relationships between the factors and the details of the agriculture and seafood industries in Vietnam is needed to arrive at the most authentic answers to the two subject questions. Secondly, this study necessitates obtaining a massive amount of data

from a reputable source on the Internet. Several of the publications referenced are premium editions. The time spent on the Internet in pursuit of legitimate facts is not trivial, and this report gathered data from significant publications and reputable state agencies. Finally, contacting the two prominent individuals who participated in this study's interview is exceedingly difficult due to their stature and a packed calendar. Appropriately, email attempts were fruitful, and explanatory interviews with two candidates were conducted.

1.4 Thesis Process

The research subject was deliberately considered and selected based on the author's area of expertise and capacity for handling the total work. The subject of logistics expense irrationalities in the agriculture and fisheries sectors of Vietnam was chosen as a result of the lecturers' advice and experience gained during previous training courses. Then, a methodology technique that was perceived to be best and appropriate for this analysis was selected and also decided upon by a large number of other scholars: qualitative research, narrative approach. For instance, Zhao and Tang researched defining and developing strategies for China's logistics cost reduction using the same data collection method. (Zhao and Tang, 2009).

Following that, the search for documentation and sources of evidence to validate this thesis began immediately. Documents must be obtained from credible national publications and government departments. Simultaneously, theories relevant to the research subject are considered and selected: Morana's logistics theory and Zhao and Tang's Strategy for Logistics Cost Reduction. Concurrently with designing and organizing the work required to complete these studies, a streamlined timetable that was simple to track and follow was established.

It took about a week to contact potential applicants for an in-depth interview. Interview emails were sent to all representatives of major companies in the logistics industry that serves Vietnamese agricultural goods, and only two prominent names responded positively to the interview, namely Mr. Quang and Mrs. Hoai. A questionnaire and thorough strategy were used to prepare for the interview and self-research on the two prerequisite responses to ensure that the author's mind was sharp enough to predict future scenarios

and ensure the interview went smoothly. During the 20-minute interviews, semi-structured questions and observation methods were used.

The data from the interviews were compiled and analyzed comprehensively, beginning with a comparison to the findings of the previous self-research and concluding with a final summary of the causes and optimal solutions for Vietnam's Logistics Cost Paradox case, as predicted. After the aggregate process, a thesis report was issued.

2 THEORETICAL FRAMEWORK

This chapter discusses the ideas that contribute to the thesis's support. Numerous separate definitions of logistics expense are given, along with an explanation of how such definitions apply to and understand the research issue statement.

2.1 Logistics Theories

Wood suggested that *"Logistics means the organized movement of goods, services, and, sometimes, people. Logistics was originally a military term encompassing the processes to supply combat and troop support. In trade, logistics handles the physical movement of products between one or more participants in the supply chain."* (Wood, 2002). While Morana argued that emerging logistics function in companies was inevitable due to mass consumption and standardization. In other words, companies' interest was broadening the number of customers receiving products through delivery. As a result, *"industrialization and competition in the 1980s forced companies to control their costs and financial control tightly is part of logistics activities"* (Morana, 2018). In terms of the problem statement, both theories complement and endorse each other. The thesis examined Vietnam's logistics networks as an official economic operation. A vast number of firms work and forecast the effects of cost management to increase productivity.

2.2 Logistics Costs Theories

In general, cost elements closely related to the actual movement of goods are readily viewed as a portion of overall logistics costs. They are thus referred to as direct costs in this article. Logistics systems also produce operational costs, such as those associated with management, which is not exclusive to logistics. Identifying and quantifying these effects is far more challenging than quantifying direct costs. (Rantasila and Ojala, 2012.)

According to Rantasila and Ojala, there are two possible methods to determining logistics expenses. One possibility is to group them into four categories based on those dimensions: direct vs. indirect costs and overhead vs. activity-related costs. Another technique for systematizing transportation costs is Transaction Cost Analysis (TCA). Transaction costs result in the exchange of goods or assets, whether intra- or inter-firm deals. (Rantasila et al., 2012)

Simultaneously, Zhao and Tang suggested a formula for calculating the expense of logistics in the Chinese economy (Figure 3). It is divided into three influencing components on a logistics level: macro, industry, and micro. The macro factor is concerned with government and industrial structure, while the micro factor is concerned with logistics standardization and enterprise. Additionally, they propose an identical strategy for cost reduction in each region.

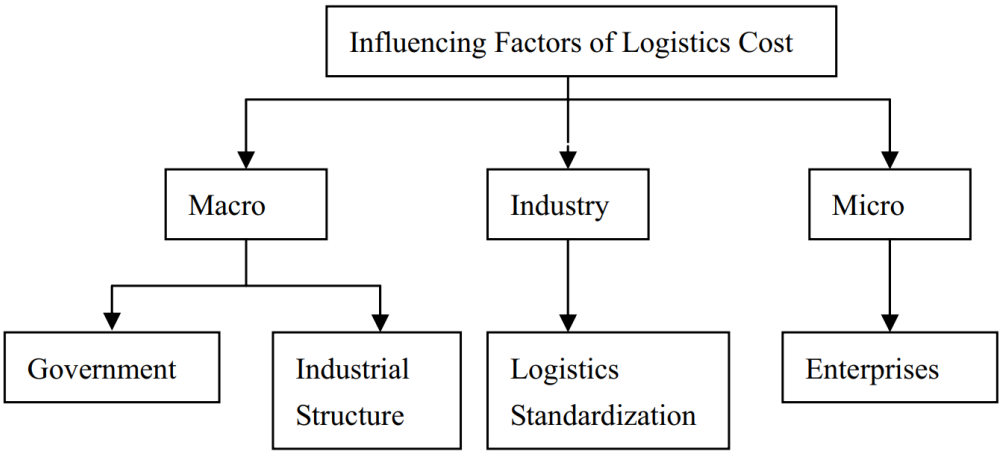

Figure 3 Influencing Factors of Logistics Cost model.

2.2.1 Macro

Government and industrial structure are considered macro elements. Government planning for the logistics industry and its commitment significantly impact the region's logistics costs. Several policies may be listed, including logistics infrastructure development, industrial regulation and guidance, free markets, land policy, financial policy, investment promotion, modern logistics sector cultivation, logistics staff preparation, and customs policy. (Zhao and Tang, 2009).

The industrial structure has an impact on the proportion of logistics costs. For example, manufacturing industries incur higher prices for warehousing and transportation, resulting in higher logistics costs than service industries. The industrial category composition impacts the overall cost of logistics within a country and the proportion of logistics contribution to GDP. In other words, different industries have significantly different transportation costs.

The government should implement a comprehensive strategy, increase spending, and foster the growth of logistics businesses. Policies and financial aid packages must be highly publicized in order to recruit not just domestic but also international companies. Additionally, companies should be encouraged to use advanced technology and optimal logistics strategies to ensure low logistics costs, productivity, and sustainability. Infrastructure for logistics systems, such as ports, container transfer points, and bulk terminals, must be established to assist companies in quickly growing and expanding their scale of operation. To achieve proficiency, an attempt should be made to motivate non-logistics businesses to outsource logistics services to logistics firms to concentrate on their core market, and money and capital from the government are working.

2.2.2 Industry

Standardization of logistics, which involves the regularity and uniform packaging of goods, barcoding of logistics details, and container unitization of loading, unloading, transportation, and storage, among other things, is an efficient way to minimize logistics costs and increase productivity. Logistics is a broad sector encompassing shipping, packing, storage, loading, unloading, handling, distribution processing, and information management.

The logistics facility should be standardized in accordance with accepted international practice, followed by national standardization. The implementation of national logistics requirements should not be divorced from current international logistics rules. The expense of logistics becomes prohibitively expensive when the domestic and foreign logistics industries are split. Following that, using the entire logistics structure as a starting point, the coordination of technological and operational requirements in the different subsystems and subfields is studied.

2.2.3 Micro

Costs in logistics industries are closely related to implementing advanced management and information management systems. Additionally, information networks between businesses and between enterprises and the State are critical. Poor coordination results in a lack of clarity in sharing information, which results in misplaced preparation and spend-

ing, driving up prices and making logistics businesses more inefficient. Additionally, logistics companies must handle their overall logistics costs effectively. It must be declared exhaustively, in-depth, and utterly distinct from all business expenditures.

Enterprises must prioritize supply chain management as a means of achieving a strategic edge in the market. This can be accomplished by managing commodities, the warehouse, and the mode of transport scientifically and efficiently. It is unavoidable to invest in new technology and management tools. Businesses in the logistics industry also provide a variety of services. Conducting research and concentrating on the organized interaction between various levels of logistics will help companies save a significant amount of money. For instance, scientific inventory management can help minimize inventory costs when combined with transportation, and scheduling changes can result in more efficient delivery. Strategic alliances between logistics companies, contracting logistics operations, and strategic cost analysis are only a few of the latest technologies that can assist businesses in reducing logistics costs.

Zhao and Tang's approach is more consistent with the study since it examines the logistics structure as a whole before breaking it down into smaller components for investigation. Additionally, when Zhao and his wife conducted their research in 2009, the logistics industry in China shared specific characteristics with Vietnam today: internal logistics costs were prohibitively high, companies working in the logistics sector were decentralized, and the government lacked concern and commitment in the logistics sector as a nascent industry. Simultaneously, the subject studied by two writers in their publications bears a strong resemblance to this study, as both authors used the same methods and approach.

2.3 Empirical Application

The logistics and logistics cost theory concepts were applied to the issue of Vietnam's logistics cost paradox. This experiment was conducted in order to determine the relevance and applicability of the theory in Vietnam. These structures also have functions for searching, choosing, and evaluating parameters. The logistics theory was used to define the logistics industry in Vietnam. In contrast, the logistics costs theory was used to dissect the logistics cost portion and analyze logistics cost viewpoints from various angles.

3 RESEARCH METHODOLOGY

This section discusses the primary methods used in the study, which provides general information about the analytical technique, data collection process, and data processing method. A description and assessment of the methodology's compatibility with the research's intent and the form of data required, and how it addressed the studied problem will be presented.

3.1 Methodological Approach

3.1.1 Research Problem

Vietnam's logistics costs remained high in general, and especially in the agriculture and seafood industries (accounting for 25-30 percent of the price). Manufacturing and distribution operations in these sectors are highly reliant on the logistics framework. More specifically, the cost of shipping goods inside the country is considerably higher than the cost of transporting goods to other countries. Reduce transportation costs for agriculture and fisheries in order to help businesses improve their productivity and manufacturing structure. The study sought to take a broad view of the Vietnamese logistics environment, clarify the paradox, and suggest systematic solutions.

3.1.2 Type of Data

The type of data needed to support this thesis is qualitative data, which was expressed in words. The author collected primary data by himself. Secondary data was accumulated with a narrative approach. The secondary data was described as data collected by someone else, with the source of books, articles, reports.

3.1.3 Methodology

Qualitative research was used as the primary method in this study. The qualitative research method is generally exploratory. It is used to achieve a deeper understanding of the fundamental factors, beliefs, and motives. It gives insight into the issue or helps to generate concepts or theories. It seeks to describe respondents' feelings, experiences, and thoughts, and ideas about identified problems. It is subjective. The approach used was narrative research.

Narrative research is a qualitative research technique that analyzes individuals' personal stories' written or spoken words. Narrative analysis has been successfully applied in management science and has matured in the field of knowledge management. This approach is concerned with the arrangement of human information, knowledge management, and narrative analysis. Both methods share the concept of transmitting unquantifiable aspects of knowledge, such as experience; this concept is often referred to as knowledge transfer. When doing this type of study, collected anecdotes, a subset of the narrative, aid in organizing details on how individuals have transposed events, the views, memories, and principles that shape those meanings, and their intentions, expectations, and plans. (Elkatawneh, 2016.)

The approach supported collecting data from reputable online databases and other documents such as books, papers, journals, and posts. Depth interviews were conducted with managers/leaders of large logistic companies in Vietnam using a semi-structured design to elicit their insights and perspectives on the research issue.

3.2 Data Collection

The data collected on the Internet were chosen based on their trustworthiness, including reputable blogs, books, reports, and posts. Reliable websites were described as those operated by government agencies and audit data pertaining to Vietnam's logistics industry. The thesis analyzed a paid report from Vietnam Credit and the most recent logistic annual report from the Ministry of Industry and Trade of Vietnam. The author was an involved participant in the data collection process. Theoretical frameworks were culled from textbooks.

To achieve a deeper understanding and bolster the thesis's credibility, semi-structured interviews were conducted with two major Vietnam logistics industry players. A key player was described as the managing director/leader of a logistics company in Vietnam. S/he was aware of the study's challenge and ready to discuss plans and suggestions. Their decisions have a massive impact on the country's logistics industry. A draft email requesting approval for an interview was submitted to the targeted group of ten. Five of them replied, with two agreed to participate in the interview process. For semi-structured sessions, a questionnaire was created. Every interview lasted roughly 20 minutes

and took place in Microsoft Teams. Answers were jotted down. No filming or recording was permitted by the participants.

3.3 Analysis

The interviews and materials were transcribed, and content analysis was conducted. This required classifying and debating the meanings of words, phrases, and sentences. The views of interviewees were categorized into Causes and Solutions. Each category seemed to have gained additional insights and facts about life in preparation for this thesis.

3.4 Evaluating

The qualitative method with narrative research was proved to be suitable for this thesis. Since the research's problem and purpose were categorized as complex phenomena and needed holistic dimensions, the quantitative method could not help in this case. Furthermore, Zhao and Tang were using the same techniques when examining strategies to reduce China's logistics cost in 2009 (Zhao and Tang, 2009).

Simultaneously, the author proactively acquired information about the logistics industry and similar topics before the interview, minimizing the challenges and knowledge gaps between the researcher and participants. Paid material was used to ensure the material's reliability and provide the most up-to-date information on Vietnam's logistics industry.

4 RESULTS

This chapter summarizes key findings of the causes of Vietnam's Logistics Cost Paradox and how to resolve those issues following study efforts. Three foundations influenced the outcome: ideas, the author's Internet analysis, and interviewees' perspectives. The repercussions are classified into two categories: Causes and Solutions.

4.1 Causes

The question of assessing the impact of factors that increase logistics costs for agricultural products on a scale of 1-5 (1- No impact on 5- Very much). Three leading factors are considered to affect the cost of cool transport service, including the synchronization of the infrastructure connection, traffic congestion, and transportation costs, while outsourcing logistics services is the least problematic factor (Figure 4).

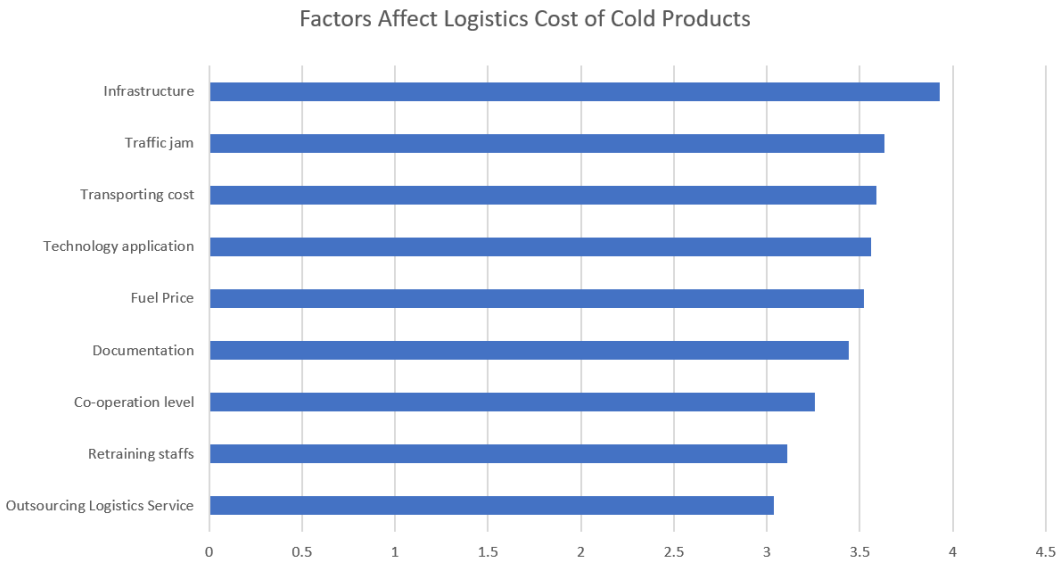

Figure 4 Factors Affecting Logistics Costs for Cold Products. *Source: Survey results of the research group of the University of Transport of Ho Chi Minh City and the Vietnam Logistics Research and Development Institute (VLI). Translator: Phuoc Vu.*

Another pressing issue for companies is a variety of flaws in the policy processes and legislation governing transportation and infrastructure charges. In response to rising fuel prices, BOT fees, road maintenance fees, and informal costs, logistics companies are increasing the transportation costs that agricultural suppliers must bear while they are not in business. According to statistics, a fifth of surveyed agricultural enterprises outsources

transportation services. The large number of BOT was also the problem. BOT is an acronym for Build-Operate-Transfer. The majority of Vietnam's road system was constructed by developers, who could charge a fee for vehicles transporting via that route. There are 21 BOTs with cumulative fees of approximately VND 1 million (about 40€) for a decent container transporting agricultural and seafood products from Ho Chi Minh City to Hanoi using road.

According to the study, the cost of shipping services continues to rise each year. Experts estimate that the surcharges charged by shipping firms for transporting Vietnamese goods amount to around 1% of the value of the three industries of textiles, footwear, and fisheries. Fees usually rise by 20% a year.

According to figures, shipping firms receive more than 20 different fees and surcharges from Vietnamese seafood enterprises. Specific fees are excessive, such as the weight declaration fee (Verified Gross Mass - VGM), the data transmission fee, etc. Certain shipping lines have implemented new fee structures, including a fee for expedited shipping, a fee for containers with a loss of balance weight (CIC), a fee for barges, and emergency fuel. Additionally, the fees charged by various shipping lines vary Terminal Handling Charges (THC) range between 90 and 120 USD (75-100€), Bill cost, and Delivery Order fee (D/O) range between 750,000 and 1,000,000 VND (between 30 and 40€) per bill, depending on the shipping line. Simultaneous and regular price increases that the shipping company does not see until a few days before (sometimes just 2-3 days) render companies reactive and fragile.

4.1.1 Locations of Processing Factories and Warehouses

Along with the conventional belief that processing factories located near raw material sources are more convenient for packing, reduce loss during shipping, and are easier to buy, agribusinesses now believe that logistics warehouses for agricultural products must be constructed in locations directly linked to stations and ports. These serve as meeting points for products acquired from a variety of sources and refined, pre-processed, and packaged. As a result, a plethora of agricultural processing factories are concentrated near border checkpoints or at border gates. For instance, if businesses consider the advantageous position near Cat Lai port, a significant number choose to construct preliminary

processing factories and storage warehouses in Binh Duong because the government develops numerous industrial parks, invites investment, and maintains transparent administrative procedures. However, this is just one good example; the nation requires numerous locations such as those mentioned above that are well planned and strategically located.

4.1.2 Logistics and Transporting Costs

In addition to transportation costs, specialized inspection fees are pretty high, for example, inspection and microbiological fees for coffee: about 30 USD/container (about 25€), with cashew nuts: about 300-350 USD/container (from 250-290€). Additionally, the time required for specialized inspection is very lengthy, ranging between one and two days, resulting in costs for monitoring, container handling, and storage, thus increasing logistics costs. Additionally, businesses expressed concern about the high cost of foreign transportation-related expenses such as container imbalance fees, container cleaning fees, Delivery Order fees, and fuel charges. Domestic shipping costs were often higher than foreign transport costs; for example, one container exporting from Hai Phong to Ho Chi Minh City costs the same as one container exporting from Hai Phong to Singapore or Thailand. Not to mention the infrastructure fees in Hai Phong, which ranged from 250,000 to 500,000 VND ($10-20€) per container. According to some firms, transportation costs are primarily determined by a company's professionalism. For example, Binh Thuan's container to Cat Lai collected 18 million VND (approximately 650€) when transported by a professional enterprise, but only about 15 million VND (approximately 540€) when transported by a less professional company. Thus, although using a skilled logistics firm can increase logistics costs, the reputation for service quality and reliability provides a competitive advantage. Businesses also want to maintain stable transportation costs, especially during the harvest season, when there is a shortage of vehicles to transport.

4.1.3 Infrastructure and Transporting Time

Even though the preservation process is very stringent, companies continue to use road and sea to transport fresh vegetables, fruits, and flowers instead of flying to save expense (more than 90 percent of goods are shipped by sea, less than 10 percent of goods are shipped by air).

However, the time restriction and congested traffic make customs clearance and export difficult. Inadequate transportation infrastructure lengthens the time it takes for goods to travel by road. At the moment, logistics enterprises lack leverage with shipping lines; their capacity to solve problems is restricted. As a result, they are dominated by shipping lines, resulting in containers and warehousing yards at uncontrolled ports. It is essential to increase the floor level at Cat Lai Port in particular because, at the moment, flooding into the container floor occurs when agricultural products are shipped during the rainy season.

The inland waterway network is small, and during the high season, congestion on land and at inland ports is common. Since the bridge clearance is insufficient for the barge to cross, the cost of loading and unloading at inland waterway ports will reach 1.8 million VND (nearly 65€) per container.

Lack of a container in which to pack results in waiting at the yard. Container trucks have not yet reached raw material areas, forcing businesses to break their vehicles to reach wholesalers, cooperatives, and farmer households, especially in the Mekong Delta region. The time required to transport goods from growing areas to gathering and pre-processing locations increases.

The shortage of empty containers is also a significant issue for companies with large production capacities. As a result, the enterprise recommended that the depots be located in a relatively convenient area for receiving and returning empty containers. For instance, in the Mekong Delta area, the depot should be located in Sa Dec, Vinh Long, and Can Tho to avoid the current shortage of empty container depots, which will impact the time required to construct them due to the need to take empty containers. If goods are stored in a warehouse or transported to ports in the Ho Chi Minh City area for loading, the appropriate protocols for delivery must be followed.

4.2 Solutions

Solutions proposed in this thesis were divided into three aspects: government, enterprises, and farmers in improving the logistics industry serving agricultural and seafood products.

4.2.1 Government

At the moment, Vietnam's infrastructure does not meet the needs of logistics businesses and shippers, resulting in increased costs due to delays caused by traffic jams, bridge closures, and port congestion. Investment should be directed toward expanding and upgrading the warehouse at Tan Son Nhat airport and effectively using the capability of the Cai Mep deep-water port. Additionally, consider eliminating surcharges. Simultaneously, companies incur high transportation costs due to the volatile cost of tolls, BOT, and gas.

The State should implement policies that support and promote costs for agricultural enterprises, giving small businesses and household businesses a competitive edge. Indeed, many household businesses in rapidly developing areas have failed to achieve success. They have gone bankrupt due to years of losses, and the State needs to take steps to help Vietnamese agricultural products.

The State should prioritize investing in research to assist farmers in establishing a broader network of connections that will allow them to not only increase productivity and price but also distribute high-quality agricultural products to the domestic market.

4.2.2 Enterprises

Vietnam's logistics companies must prioritize the enhancement of their service systems. The majority of companies with export experience stated that they would like to work with international logistics firms due to their professionalism and ability to provide integrated services at a higher cost but more efficiently. As a result, it is critical to elevate the role of Vietnamese logistics companies on a level playing field with international logistics firms (mostly subsidiaries of shipping lines).

It is vital to establish logistics service networks, including dedicated logistics firms, ports, and specialist agencies. The foundation must provide specific mandatory characteristics, such as clear information about ports, ships, and infrastructure conditions, to allow businesses to prepare for transport and distribution in advance. There should be an increase in the number of technological systems and resources available to assist companies in the supply chain.

Packaging and labeling businesses must adopt a fairer pricing strategy and maintain consistent prices throughout the year to build a solid, long-term relationship with agricultural product owners. It is critical to employ modern information technology applications to assist shippers in tracking the contents and status of their consignments. One of the most widely used applications that can be implemented quickly is the QR code in conjunction with the blockchain framework.

4.2.3 Farmers

Post-harvest storage should be restricted to the growing area and field. Post-harvest storage is also a significant issue, as most farmers use their homes as warehouses, creating a slew of quality-related issues such as moisture, mold, and insects.

Farmers who want their products to be accepted as valuable and sold at a premium should commit to delivering the right products in adequate quantity and quality as agreed upon with traders to maintain a long-term relationship and ensure stable production. Food hygiene and protection must also be prioritized, including the use of sanitary products, proper storage of post-harvest materials, and appropriate records to track the material's origin.

5 CONCLUSION AND DISCUSSION

To summarize, logistics is a relatively new industry in Vietnam. As a result, it has a great deal of room for improvement. This research has identified and discussed many causes and solutions. Vietnam's logistics system will have a long way to go before it reaches the level of developed neighboring countries such as Thailand and China. However, it is a long road ahead, and little incremental progress can meet the goal. The study's situation descriptions and strategies represented both the big picture of Vietnam's logistics and the investigation of specific aspects. It was the culmination of research into hypotheses, reports, fact checking, and consultation with two interviewees about their experiences. The outcome was ethical because it did not violate any person or organization's right, benefit, or privacy. It also benefited Vietnam logistics in general, and specifically logistics serving agricultural and seafood goods.

5.1 Limitations

Since the thesis's results are the product of the author's study and interviewees' perspectives, any secret variables or ideas will likely be overlooked. Additionally, the study's objective was to identify root causes and propose solutions for lowering Vietnam's logistics costs associated with agricultural and seafood products, thus increasing the value of Vietnamese agricultural products. It should not be assumed that this study is solely aimed at increasing the value of Vietnamese agricultural products, as their intrinsic value is determined by the quality of harvest available to farmers.

REFERENCES

Zhao, X. and Tang, Q., 2009. Analysis and Strategy of the Chinese Logistics Cost Reduction. International Journal of Business and Management, 4(4).

Morana, J., 2018. Logistics. Wiley-ISTE.

Wood, D., 2002. International logistics. 2nd ed. New York, N.Y.: AMACOM Books, pp.1-3.

2019. Logistics Vietnam in Agriculture Report 2019. 1st ed. Hanoi: CongThuong Publisher.

Rantasila, Karri; Ojala, Lauri (2012): Measurement of national-level logistics costs and performance, International Transport Forum Discussion Paper, No. 2012-4, Organization for Economic Co-operation and Development (OECD), International Transport Forum, Paris, http://dx.doi.org/10.1787/5k8zvv79pzkk-en

Vietanlaw.com. 2021. Vietnam Commercial Law 2005. [online] Available at: <https://vietanlaw.com/36-2005-qh11/> [Accessed 03 April 2021].

WIRE, B., 2021. 2019 Report on the Vietnam Freight & Logistics Market: Anticipated to Record a CAGR of 14-16% During 2018 to 2024 - ResearchAndMarkets.com. [online] Businesswire.com. Available at: <https://www.businesswire.com/news/home/20190319005641/en/2019-Report-on-the-Vietnam-Freight-Logistics-Market-Anticipated-to-Record-a-CAGR-of-14-16-During-2018-to-2024---ResearchAndMarkets.com> [Accessed 16 April 2021].

Lpi.worldbank.org. 2021. Home | Logistics Performance Index. [online] Available at: <https://lpi.worldbank.org/> [Accessed 16 April 2021].

VietnamCredit. 2021. Vietnam Logistics Industry in 2020. [online] Available at: <https://vietnamcredit.com.vn/news/vietnam-logistics-industry-in-2020_14341> [Accessed 17 April 2021].

Google.com. 2021. Google Finance. [online] Available at: <https://www.google.com/intl/en/googlefinance/disclaimer/> [Accessed 17 April 2021].

Mattos, R. and Brun, J., 2018. Food Losses in Vietnam: The Shocking Reality. [online] Food Logistics. Available at: <https://www.foodlogistics.com/transportation/cold-chain/article/21010074/food-losses-in-vietnam-the-shocking-reality> [Accessed 20 April 2021].

CafeF.vn. 2021. 'Vua tôm' Việt Nam nói về nghịch lý ngành logistics: Cùng 1 container, vận chuyển từ Việt Nam sang Mỹ hết 41 triệu nhưng từ TPHCM ra Hà Nội hết 80 triệu | Tin tức doanh nghiệp niêm yết | | CafeF.vn. [online] Available at: <https://s.cafef.vn/mpc-364645/vua-tom-viet-nam-noi-ve-nghich-ly-nganh-logistics-cung-1-container-van-chuyen-tu-viet-nam-sang-my-het-41-trieu-nhung-tu-tphcm-ra-ha-noi-het-80-trieu.chn> [Accessed 20 April 2021].

Elkatawneh, H., 2016. The Five Qualitative Approaches: Problem, Purpose, and Questions/The Role of Theory in the Five Qualitative Approaches/Comparative Case Study. SSRN Electronic Journal.

APPENDICES

Appendix 1: Semi-structured questionnaire

1. What do you think affects the cost of Logistics in general and in Vietnam's logistics industry in particular?
2. Explain Vietnam's Logistics Costs Paradox.
3. What do you think are the main causes of Vietnam's Logistics Costs Paradox?
4. What can be done shortly by the enterprises and the government to resolve that paradox?
5. How about in the long run?
6. In case of running out of things to talk about:
    a. Do you think transporting by road is one of the main causes?
    b. Is air transport for agricultural products possible?
    c. BOT is raising the cost of road transport, but at the same time, we cannot do anything about it. Do you think that let's wait until the BOT collects investors' capital then the problem is solved?

Appendix 2: Interview notes

	Le Van Quang	Nguyen Thi Hoai
1	Transportation cost, warehousing cost, Outsourcing logistics part to third-party (logistics company), level of improvement of the logistics industry, government policy and planning, distribution cost	Warehousing cost, inventory management costs, transportation shifting costs, government policies in improving Vietnam's logistics industry
3	High cost in road transportation mode, much fee had been wasted to BOTs. We lack improvement infrastructure in inland water way and rail although those are a good route to deliver and distribute agricultural and seafood products. Lack of internal ports. Lack of qualified staff in the logistics industry. A state company controls ports, and sea transportation mode and fees are raised inconstantly.	Road transport is flexible, but it consumes many kinds of fees (like Mr. Quang). Air transport is expensive and mainly exploited for passenger transport. There are many international logistics businesses with higher professionality and more competitiveness, but they charge a higher price. Some big businesses in Vietnam develop and deploy their own logistics department, which is considered to be wasted because they can outsource it and focus on their core business. Ex: Vinamilk.
4+5	Government planning and policy and their protection to conduct the	Government projects to build infrastructure and capital to

	plan are the keys to help the logistics industry. Deploy storages and factories for logistics in strategic locations. Training staffs to master primary task serving the logistics for agricultural products (cold chain, preservation) to compete with international rivals. Logistics ventures.	help logistics businesses enhance their competitiveness are vital. Cold warehouses and cold containers need more investment to meet the demand of quantity and quality. Logistics software needs to be developed (or purchased from a successful model) and widely deployed on a large scale.
Other comments	BOTs will not go anywhere because there always more route built by investors if the government accepts their bids. The government should change the capital allocation and build infrastructure by their budget.	Air transport is very compatible with high-value agricultural products due to low transporting time, minimizing perishability. The cost will be lowered by experts' efforts when exploring it as a popular transportation mode for agricultural products.