

# **Navigating the Global Market: Challenges and Opportunities for Indonesian Bird's Nest Exporters**

## **Case Study in Indonesia Region**

**Submitted to Nanjing Xiaozhuang University in China  
In Fulfilment of the Requirements for Obtaining  
Bachelor of Business Administration**



**Boby Malikul Lail/王子夜**

**L20231027**

**STUDY PROGRAM INTERNATIONAL ECONOMICS  
AND TRADE FACULTY OF BUSINESS NANJING  
XIAOZHUANG UNIVERSITY**

**2025**

## ABSTRACT

This study explores the challenges and opportunities faced by Indonesian exporters of edible bird's nests (EBN), focusing on the regulatory and market dynamics that influence their global competitiveness. As the largest producer of EBN, Indonesia has encountered significant obstacles, particularly due to stringent regulations from destination countries like China, which have disrupted direct exports. Despite this, the growing global demand for EBN, driven by its perceived health benefits and luxury status, presents new opportunities for diversification beyond China into markets in North America, Europe, and the Middle East. The study examines key factors including trade policies, supply chain inefficiencies, and certification requirements, providing recommendations for improving export strategies, enhancing product quality, and expanding market reach. Additionally, the role of government support and the importance of market diversification are discussed in terms of sustaining Indonesia's leadership in the global EBN industry.

**Keywords:** *Edible Bird's Nest, Export, Global Market, Regulatory Challenge*

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## CHAPTER I

### INTRODUCTION

#### **1.1 RESEARCH BACKGROUND**

##### **1.1.1 The Economic Importance of the Edible Bird's Nest (EBN) Industry**

The edible bird's nest (EBN) industry has emerged as a significant player in the global luxury food and health supplement market. These nests, primarily built by swiftlets, are highly sought after due to their perceived health benefits (Scielo, 2022). In traditional medicine, especially in East Asia, EBNs are believed to enhance the immune system, support respiratory health, improve skin elasticity, and offer anti-aging effects (Lai, 2022). Consequently, EBN consumption has been deeply ingrained in the cultural and health practices of countries such as China, China, Taiwan, and Southeast Asia for centuries.

Table 1.1 Destination Countries & Export Volume of Indonesia's Edible Bird's Nest 2017-2021

| No. | Destination Country | 2017  | 2018  | 2019  | 2020  | 2021  |
|-----|---------------------|-------|-------|-------|-------|-------|
| 1   | China               | 487.8 | 290.4 | 644.1 | 897.2 | 989.9 |
| 2   | China               | 55.5  | 69.6  | 129.1 | 263.5 | 228.8 |
| 3   | Singapore           | 71.6  | 90.0  | 75.4  | 68.8  | 80.0  |
| 4   | United States       | 18.2  | 16.6  | 47.0  | 20.4  | 66.2  |
| 5   | Vietnam             | 624.5 | 806.1 | 329.9 | 27.2  | 71.3  |
| 6   | Canada              | 3.4   | 2.7   | 2.0   | 1.8   | 2.3   |
| 7   | Taiwan              | 8.3   | 5.5   | 5.6   | 12.9  | 20.6  |
| 8   | Thailand            | 3.9   | 4.4   | 1.1   | 2.4   | 1.8   |
| 9   | Japan               | 0.3   | 1.0   | 0.1   | 0.3   | 0.1   |
| 10  | Cambodia            | 0.6   | —     | —     | —     | —     |
| 11  | Others              | 12.6  | 5.6   | 24.5  | 18.0  | 44.5  |

*Source: BPS, 2022 in (Halkam, 2024)*

Indonesia plays a central role in the global EBN market, accounting for approximately 70% of global production. The country's tropical climate, characterized by high temperatures and humidity, along with its extensive coastal regions and limestone caves, provides an ideal environment for swiftlets to thrive. As a result, Indonesia has long been recognized as the largest producer and exporter of edible bird's nests, supported by both natural cave harvesting and increasingly by artificial swiftlet houses (Ito, 2021).

Historically, swiftlet farming in Indonesia relied on the labor-intensive and dangerous practice of harvesting nests from natural caves, often involving scaling steep rock walls. However, over time, the industry shifted towards more sustainable practices with the establishment of artificial swiftlet houses, or "rumah walet," designed to mimic natural cave environments. These man-made structures allow farmers to control key environmental factors such as temperature, humidity, and air quality, creating a safer and more productive setting for swiftlet farming. This transition has resulted in increased production, better quality control, and a more consistent supply of edible nests, which has been essential to meet the growing demand, particularly from China. However, the shift also brings ecological and social challenges, including noise pollution and the potential spread of disease from swiftlet houses in urban areas. Additionally, the domestication of swiftlets in these artificial environments may lead to the emergence of a new sub-species with different behaviors, further complicating the relationship between humans and these birds (Thorburn, 2014).

Table 1.2 Bilateral Trade in Edible Bird Nests (EBN) between Indonesia and China

| No | Year | China's Imports<br>From Indonesia<br>(USD) | China's Imports<br>From Indonesia<br>(Tons) | Indonesia's<br>Exports to The<br>World (USD) |
|----|------|--------------------------------------------|---------------------------------------------|----------------------------------------------|
| 1  | 2016 | 37,501,000                                 | 23                                          | 192,572,000                                  |
| 2  | 2017 | 103,075,000                                | 55                                          | 280,585,000                                  |
| 3  | 2018 | 143,134,000                                | 68                                          | 291,347,000                                  |
| 4  | 2019 | 219,934,000                                | 128                                         | 364,201,000                                  |
| 5  | 2020 | 412,939,000                                | 259                                         | 540,761,000                                  |
| 6  | 2021 | 349,905,000                                | 222                                         | 517,541,000                                  |
| 7  | 2022 | 400,488,000                                | 293                                         | 590,577,000                                  |

Source: (Putra 2023)

The shift from traditional cave harvesting to modern swiftlet farming has also democratized the industry, enabling smaller-scale farmers to enter the market. Many rural households, especially in regions such as Java, Sumatra, Kalimantan, and Sulawesi, now engage in swiftlet farming as a supplementary source of income (Fajarwati, 2023). This has contributed to the overall economic development of these rural areas by creating employment opportunities for local workers and small-scale producers.

Indonesia, as the world's leading producer of edible bird's nests (EBN), generates approximately 400,000 tons annually—primarily swallow nests—and holds nearly 80% of global production. Despite this dominance, the country historically relied on intermediaries such as Malaysia and Singapore to access the Chinese market due to restrictions tied to health concerns like the H5N1 avian flu. This indirect trade route led to significant price disparities and economic losses, as products sold via Malaysia fetched around IDR 5 million per kg, compared to over IDR 37 million per kg in China. A turning point came in 2012 with the signing of a bilateral protocol between Indonesia and China that allowed direct exports, potentially increasing trade volume by 50–100% (Indonesia, 2012).

Further complications arose when China suspended imports due to high nitrite levels, though trade resumed after both countries agreed on safety standards. China, Singapore, China, and Taiwan remain Indonesia's largest export destinations, with bird's nest exports contributing approximately 0.5% to Indonesia's GDP. Between 2007 and 2011, Indonesia's EBN exports experienced an average annual growth rate of 29.27%, surpassing global growth trends. In 2011 alone, Indonesia exported bird's nest products to 11 countries, with Jakarta leading in provincial export value. Though China accounted for just 6.59% of exports at the time, it showed exponential growth and remains a highly promising market moving forward (Indonesia, 2012)

The economic impact of the edible bird's nest (EBN) industry in Indonesia is significant, with the country solidifying its position as the world's largest producer and exporter of this luxury commodity. In 2020, Indonesia's bird's nest exports reached

USD540.4 million, marking a 48.5% increase from 2019. By 2023, the export volume surged to 1,335 tons, generating USD 633.25 million (equivalent to IDR 9.81 trillion). This thriving industry plays a crucial role in enhancing Indonesia's trade balance and national economy, particularly through key markets such as China, China, Taiwan, and other Southeast Asian nations. The continued high demand and strong pricing for Indonesian bird's nests highlight the sector's importance to the country's economic growth (Ibai, 2024).

Table 1.3 Indonesia's Dominance in the Global Bird's Nest Market

| <b>Years</b> | <b>In thousand US dollar</b> | <b>Exports of Global Bird's Nest Market (in thousand US dollars)</b> |
|--------------|------------------------------|----------------------------------------------------------------------|
| 2012         | 153,4                        | 153.4                                                                |
| 2013         | 153,2                        | 153.2                                                                |
| 2014         | 128                          | 128                                                                  |
| 2015         | 99,8                         | 99.8                                                                 |
| 2016         | 192,5                        | 192.5                                                                |
| 2017         | 280,3                        | 280.3                                                                |
| 2018         | 290,6                        | 290.6                                                                |
| 2019         | 363,9                        | 363.9                                                                |
| 2020         | 540,4                        | 540.4                                                                |
| 2021         | 517                          | 517                                                                  |
| 2022         | 590,6                        | 590.6                                                                |
| 2023         | 633,2                        | 633.2                                                                |

Indonesia stands as one of the world's largest producers of edible bird's nests, contributing nearly 80% of global supply, as stated by Trade Minister Muhammad Luthfi in 2021. The country's exports have shown a strong upward trend, with export values reaching US\$540.4 million in 2020 an increase of 48.5% from the previous year. By 2023, Indonesia exported 1,335 tons of bird's nests, valued at approximately US\$633.25 million (or Rp 9.81 trillion), with the current price per kilogram reaching around Rp 7.35 million.

Based on the data of the Global Bird's Nest Market exports from 2012 to 2023, there is a noticeable fluctuation throughout the observed period. In 2012 and 2013, export values remained relatively stable at 153.4 and 153.2 thousand US dollars,

respectively. However, a significant decline occurred in 2014 and 2015, with exports dropping to 128.0 and further to 99.8 thousand US dollars, marking the lowest point during the twelve-year span. Following this downturn, the market experienced a strong recovery starting in 2016, where the export value nearly doubled to 192.5 thousand US dollars. This upward trend continued steadily in the subsequent years, with notable increases in 2017 (280.3 thousand) and 2018 (290.6 thousand). A more substantial surge occurred in 2019, reaching 363.9 thousand US dollars. The most significant growth was observed from 2020 onwards, with exports jumping to 540.4 thousand US dollars. Although there was a slight dip in 2021 to 517.0 thousand, the market rebounded in 2022 to 590.6 thousand, followed by another increase in 2023, reaching a peak of 633.2 thousand US dollars. These impressive figures highlight Indonesia's dominance in the global market and emphasize the importance of maintaining product quality and industry standards. In response to this, the Indonesian government has taken proactive steps to support sustainable growth through quality control and certification initiatives, aiming to strengthen the international competitiveness and reputation of its bird's nest industry amidst rising competition from regional producers (Restu, 2024).

To further enhance the industry's growth and ensure product quality, the Indonesian government has taken active steps to regulate and support the sector. This includes implementing quality control measures to meet international standards, as well as developing certification programs for swiftlet farms. These initiatives aim to strengthen the reputation and marketability of Indonesian bird's nests, particularly as competition from other EBN-producing countries such as Malaysia, Thailand, and Vietnam increases (IAEA, 2019). By focusing on sustainability and quality improvement, the Indonesian government seeks to solidify the country's position as the world's leading supplier of premium edible bird's nests.

Thus, Indonesia's dominant role in the global EBN market is the result of a combination of favorable environmental factors, rich farming traditions, and evolving farming practices. The transition from traditional cave harvesting to modern swiftlet farming has spurred significant growth in the industry, contributing to the

national economy and providing employment opportunities in rural communities. With ongoing government support and a focus on sustainability and quality, Indonesia is well-positioned to maintain its leadership in the global EBN market, ensuring both economic and socio-cultural benefits for generations to come.

### **1.1.2 Global Market Trends and Demand for Edible Bird's Nests**

While China remains the dominant market for edible bird's nests (EBN), several emerging regions, including North America and Europe, are witnessing significant growth in demand. These areas are increasingly attracted to EBN due to its perceived health benefits and association with luxury wellness trends (Lee, 2023). As global awareness of traditional health foods rises, these regions are capitalizing on the growing interest in alternative and exotic foods, opening new opportunities for EBN producers, particularly those in Indonesia, the world's leading supplier of edible bird's nests.

In North America, particularly in the United States and Canada, EBN is gaining attention as part of a broader shift towards natural health products. The growing popularity of Traditional Chinese Medicine (TCM) and other Asian wellness practices has fueled curiosity about EBN, which is believed to support skin health, digestion, and immunity (PMC, 2023).

Europe is also experiencing a slow but steady increase in the demand for EBN, driven by growing interest in superfoods and natural health products (CBI, 2024). Countries like the United Kingdom, Germany, and France are seeing a rise in consumer interest in foods that offer health benefits, such as immune support, anti-aging effects, and skin enhancement. EBN often regarded as both a health food and a luxury item, fits well with European trends favoring natural, nutrient-rich superfoods (Newton, 2024).

While demand for EBN remains robust in traditional markets like China, new growth opportunities are emerging in North America and Europe. In North

America, the rising interest in functional foods, combined with the increasing Asian diaspora, is driving up imports of EBN, especially in the United States and Canada (Iyengar, 2019). In Europe, particularly in the UK, Germany, and France, EBN is being embraced as both a luxury food and a wellness product, particularly within the high-end wellness and skincare markets (Lipiäinen, 2023). These emerging markets present substantial opportunities for Indonesian EBN exporters, although navigating varying regulatory requirements and certification standards across these regions will be crucial for success.

As demand for EBN continues to rise in these emerging markets, Indonesian exporters must adapt to the shifting market dynamics and regional preferences. These regions' growing awareness of wellness products and luxury foods presents a promising avenue for the global expansion of the EBN industry, particularly for Indonesia, which remains the leading producer of edible bird's nests. With strategic marketing, certification efforts, and an understanding of local consumer preferences, Indonesian EBN producers can capitalize on these new opportunities to sustain their position as a global leader in the industry.

**Table 1.1 Indonesia Birds' Nests Demand in 2023**

| Rep<br>orter      | Trade<br>Flow | Produ<br>ct<br>Code | Product Description                                     | Year | Partner                  | Trade<br>Value<br>(1000<br>USD) | Qua<br>ntity      | Quanti<br>ty<br>Unit |
|-------------------|---------------|---------------------|---------------------------------------------------------|------|--------------------------|---------------------------------|-------------------|----------------------|
| Indo<br>nesi<br>a | Expo<br>rt    | 40700               | Birds' eggs, in shell,<br>fresh, preserved or<br>cooked | 2023 | World                    | 3,340.05                        | 1,77<br>6,57<br>0 | Kg                   |
| Indo<br>nesi<br>a | Expo<br>rt    | 40700               | Birds' eggs, in shell,<br>fresh, preserved or<br>cooked | 2023 | Singap<br>ore            | 1,422.62                        | 670,<br>523       | Kg                   |
| Indo<br>nesi<br>a | Expo<br>rt    | 40700               | Birds' eggs, in shell,<br>fresh, preserved or<br>cooked | 2023 | East<br>Timor            | 951.76                          | 1,02<br>6,03<br>0 | Kg                   |
| Indo<br>nesi<br>a | Expo<br>rt    | 40700               | Birds' eggs, in shell,<br>fresh, preserved or<br>cooked | 2023 | Myanm<br>ar              | 582.46                          | 35,8<br>35        | Kg                   |
| Indo<br>nesi<br>a | Expo<br>rt    | 40700               | Birds' eggs, in shell,<br>fresh, preserved or<br>cooked | 2023 | Saudi<br>Arabia          | 244.64                          | 19,4<br>12        | Kg                   |
| Indo<br>nesi<br>a | Expo<br>rt    | 40700               | Birds' eggs, in shell,<br>fresh, preserved or<br>cooked | 2023 | Brunei<br>Darussa<br>lam | 138.55                          | 24,7<br>71        | Kg                   |

|           |        |       |                                                   |      |               |      |   |    |
|-----------|--------|-------|---------------------------------------------------|------|---------------|------|---|----|
| Indonesia | Export | 40700 | Birds' eggs, in shell, fresh, preserved or cooked | 2023 | United States | 0.02 | 2 | Kg |
|-----------|--------|-------|---------------------------------------------------|------|---------------|------|---|----|

Source: (WorldBank, 2023)

In 2023, Indonesia exported a total of 1,776,570 kilograms of birds' eggs in shell, whether fresh, preserved, or cooked, with a total trade value of USD 3.34 million. The main export destination was Singapore, receiving 670,523 kilograms valued at USD 1.42 million. East Timor followed with the highest quantity of 1,026,030 kilograms worth USD 951.76 thousand. Other notable export destinations included Myanmar (35,835 kg, USD 582.46 thousand), Saudi Arabia (19,412 kg, USD 244.64 thousand), and Brunei (24,771 kg, USD 138.55 thousand). The United States was the smallest market, importing only 2 kilograms valued at USD 0.02 thousand. These figures indicate Indonesia's strong regional market presence, particularly in Southeast Asia, for birds' eggs in various forms (WorldBank, 2023).

In terms of export dynamics, Indonesia stands as the largest exporter of EBNs, particularly to China and China. In 2021, Indonesia's EBN exports amounted to 1,510 tons, with 81% (1,225 tons) of this total shipped to China and China. Of these, China received the largest share, with 994 tons, while China imported 229 tons (Halkam,2024). This trend underscores Indonesia's key role in satisfying the growing global demand for EBNs, especially in China, where the product holds significant cultural value as a luxury health food.

The global trade of edible bird's nests (EBNs) is characterized by high-value products, with top-quality nests fetching prices ranging from USD 2,000 to USD 10,000 per kilogram, reflecting their significant nutritional and medicinal therapeutic values (Marcone, 2005). EBN is widely used in traditional Chinese medicine (TCM), especially in the preparation of bird's nest soup, which is made by double boiling the nests with rock sugar (Hobbs, 2004). The labor-intensive process of harvesting, cleaning, sorting, and packaging further adds to the production costs, making the EBN industry both costly and

lucrative. Despite these high costs, EBN remains one of the most expensive animal by-products globally, and its market continues to thrive due to its cultural and medicinal significance, particularly in regions such as China, the largest global importer of EBN (Ting H. Lee, 2021).

### **1.1.3 Indonesia's Competitive Position in the Global EBN Industry**

Indonesia holds a dominant position in the global edible bird's nest (EBN) industry, accounting for approximately 70% of the global market share. This leadership is largely attributed to Indonesia's natural advantages, including its tropical climate, which provides the ideal conditions for swiftlet farming. The high humidity, stable temperatures, and abundant coastal areas support large-scale breeding and nesting, enabling the country to produce an impressive volume of high-quality nests (Zulkefle, 2024). Indonesia's extensive archipelago further enhances this advantage by offering diverse habitats across its islands, ensuring a steady supply of edible bird's nests for both domestic consumption and international exports.

Several studies have emphasized the critical role of environmental factors in optimizing swiftlet farming productivity. For instance, (Marzuki et al., 2024) highlighted that maintaining an optimal microclimate within artificial swiftlet houses significantly improves nest quality and yield. This aligns with Indonesia's strategic efforts to utilize controlled environments to enhance production. Furthermore, research by (Mursidah et al., 2020) pointed out that sustainable swiftlet farming not only preserves natural swiftlet populations but also reduces ecological disturbances associated with traditional cave harvesting.

In terms of economic impact, (Halkam, 2024) demonstrated that Indonesia's edible bird's nest industry contributes substantially to rural economies by generating employment and boosting local entrepreneurship, especially in coastal communities. Their findings suggest that the integration of modern technology with traditional knowledge systems has paved the way for more efficient and profitable farming operations.

Moreover, several scholars have examined the global trade dynamics of edible bird's nests. According to (Ito et al., 2021) Indonesia's competitive advantage in the international market is driven not only by its natural resources but also by stringent quality control measures and certifications that meet the demands of health-conscious consumers worldwide. This has enabled Indonesia to maintain a dominant export position, particularly to key markets in China, China, and Southeast Asia.

In summary, the literature supports the notion that Indonesia's leadership in the EBN industry is multifaceted, relying on natural conditions, technological advancements, socio-economic benefits, and effective participation in global trade networks structures replicate the natural environment of caves, allowing for better control over environmental conditions like temperature and humidity, which improves both the quality and consistency of the nests produced (Xuan, 2023). This shift has significantly increased production capacity and efficiency, helping Indonesia meet the growing global demand, particularly from China, which remains the largest consumer of EBN.

One of Indonesia's key competitive advantages lies in its lower production costs compared to other major producers like Malaysia and Thailand. The country benefits from relatively inexpensive labor and raw materials, which helps reduce overall production costs (Tsunekawa, 2019). This cost advantage is especially important in price-sensitive markets such as China, where Indonesian producers can offer competitive prices for high-quality bird's nests (Rein, 2014). The affordability of production, combined with the efficiency of modern swiftlet farming techniques, enables Indonesian producers to maintain a strong market presence, particularly in regions where cost plays a crucial role in consumer decisions.

However, despite Indonesia's strong position in the global EBN industry, several challenges threaten its long-term growth and competitiveness. One of the primary concerns is the heavy reliance on manual labor in swiftlet farming, which makes the sector vulnerable to economic fluctuations, such as rising wages and labor shortages

in rural areas. Additionally, Indonesia faces regulatory challenges, including inconsistent enforcement of quality control measures and certification standards, which could undermine the reputation of its EBN products in international markets (Markom, 2024). The lack of stringent regulations may also affect product quality and safety, potentially leading to a decline in consumer trust, especially in competitive markets like China.

Furthermore, environmental sustainability is becoming an increasingly important issue for the EBN industry in Indonesia. Unsustainable farming practices, such as over-harvesting, poor farm management, and habitat destruction, could jeopardize the long-term viability of the industry. Finally, competition from other EBN-producing countries like Malaysia, Thailand, and Vietnam is intensifying. These countries are increasingly improving their production capabilities and quality standards, which could potentially erode Indonesia's market share. To maintain its competitive edge, Indonesia must continue to innovate, improve quality control, and strengthen its position in emerging markets such as North America and Europe, where demand for luxury health foods is growing. Navigating these challenges while capitalizing on new opportunities will be key to sustaining Indonesia's leadership in the global EBN market

## ***1.2 PROBLEM FORMULATIONS***

Based on the explanation provided in the background section, the Indonesian edible bird's nest (EBN) export industry faces a number of critical challenges that influence its global competitiveness and long-term growth. The problem formulations of this study are as follows:

1. What are the primary economic and regulatory challenges faced by Indonesian bird's nest exporters?
2. How do trade policies and compliance costs affect Indonesia's competitiveness in the global market?
3. What market opportunities exist for Indonesian exporters beyond China?

4. How can supply chain efficiency and value-added processing improve export performance?
5. What strategies should policymakers and industry stakeholders adopt to strengthen Indonesia's EBN sector?

### ***1.3 RESEARCH OBJECTIVES***

Based on the problem formulations, the objectives of this study are:

1. To analyze the primary economic and regulatory challenges faced by Indonesian EBN exporters, including labor costs, compliance issues, and pricing concerns.
2. To evaluate the impact of trade policies and compliance costs on Indonesia's competitiveness in key international markets, especially China.
3. To identify new market opportunities for Indonesian exporters beyond China, focusing on emerging regions such as North America, Europe, and the Middle East.
4. To examine how supply chain efficiency and value-added processing technologies can improve export outcomes, product quality, and cost-effectiveness
5. To propose policy recommendations aimed at improving the sustainability, infrastructure, and overall profitability of Indonesia's EBN industry.

### ***1.4 RESEARCH CONTRIBUTIONS***

This research provides three major contributions:

1. For Exporters and Business Owners

The study offers actionable insights into overcoming economic and regulatory barriers while identifying strategies to optimize operations, enhance supply chain performance, and access diversified markets. Exporters will benefit from recommendations that help them compete globally and adapt to industry shifts.

2. For Government and Policymakers

The findings provide valuable inputs for shaping public policies, such as export incentives, regulatory reforms, and infrastructure support. The study highlights areas where government action can drive long-term competitiveness and sustainability for both large enterprises and small-scale producers.

### 3. For Researchers and Investors

This research contributes to a deeper understanding of Indonesia's agribusiness dynamics, particularly within the growing luxury and health food segment. Investors will gain strategic knowledge about market potential, regulatory landscapes, and growth trends, supporting well-informed decision-making.

## ***1.5 SYSTEMATIC REVIEW***

The structure of this study is divided into five main chapters, each consisting of:

### **CHAPTER I: INTRODUCTION**

This chapter outlines the general background of the study, problem formulations, research objectives, research contributions, and the structure of the thesis

### **CHAPTER II: LITERATURE REVIEW**

This chapter reviews the relevant literature, including theories, industry background, market trends, regulatory environments, and previous research findings related to the EBN industry

### **CHAPTER III: THEORETICAL ANALYSIS AND HYPOTHESIS**

This chapter presents the conceptual framework, explains the theoretical foundations, and formulates the hypotheses to be tested in the study.

### **CHAPTER IV: RESEARCH METHODOLOGY**

This chapter details the research design, data collection methods, variables, sampling techniques, and analytical tools used to conduct the study

### **CHAPTER V: RESULTS AND DISCUSSION**

This chapter analyzes and discusses the research findings in relation to the hypotheses and theoretical framework, while comparing them with previous studies.

### **CHAPTER VI: CONCLUSION AND RECOMMENDATIONS**

This chapter concludes the research by summarizing key findings, offering policy and practical recommendations, and suggesting directions for future research.

## **CHAPTER II LITERATURE REVIEW**

### ***2.1 BRIEF THEORETICAL REVIEW***

The consumption of edible bird's nests (EBN) holds deep historical and cultural roots, particularly in East and Southeast Asia. In countries such as China, China, and Taiwan, EBN has been esteemed for centuries as both a luxury food item and a traditional medicinal ingredient (Suarni, 2019). It occupies a prominent place not only in culinary traditions but also in cultural heritage and wellness practices. Historically, bird's nests have been associated with wealth, status, and health, particularly due to their perceived connection to longevity and vitality. This perception has evolved over time, with EBN continuing to be regarded as a symbol of prestige and good health, often consumed by elites and royalty (Ting H. Lee, 2021).

The origins of EBN consumption can be traced back to the Tang Dynasty (618–907 AD) in China, where it was exclusively consumed by nobility, emperors, and high-ranking officials (Anonim, 2019). These nests, harvested from swiftlets in Southeast Asia, especially in present-day Indonesia, Malaysia, and Vietnam were considered a rare delicacy due to their scarcity. The trade of bird's nests became an integral part of the global supply chain, laying the foundation for the EBN industry as it exists today (Zulkefle, 2024). The association between EBN and social status during ancient times laid the groundwork for its continued reputation as a premium product.

In Traditional Chinese Medicine (TCM), edible bird's nests are believed to have various health benefits, including boosting lung health, enhancing skin vitality, supporting immune function, and promoting overall longevity. EBN is often prescribed to treat conditions such as respiratory ailments, digestive issues, and post-illness recovery. TCM practitioners use bird's nests in health tonics, soups, and teas, particularly for the elderly, pregnant women, children, and individuals recovering from illness, as a way to restore vitality and promote wellness (Ting H. Lee, 2021).

Modern biomedical research has started to validate many of these traditional claims. Studies have identified bioactive components in EBN such as sialic acid, glycoproteins, and epidermal growth factors (EGF). These compounds have demonstrated potential in cellular regeneration, immune modulation, and skin repair (Fabi, 2014). The bioactive properties of EBN reinforce its cultural and medicinal significance, aligning traditional health benefits with contemporary scientific findings. As the wellness economy expands, these attributes contribute to the continued demand for EBN globally (Ting H. Lee, 2021). The perception of EBN as both a luxury and a health-promoting product has made it highly sought after, particularly in regions like China, Taiwan, and China, where it is seen as both a symbol of prosperity and a means to achieve better health.

Edible bird's nests (EBNs) are predominantly harvested in Southeast Asia, with Indonesia being the world's leading producer, followed by Malaysia and Thailand. As of recent data, Indonesia accounts for 85% of the global EBN production, which positions it as the dominant exporter in the market. This significant production is mainly attributed to two swiftlet species: the white-nest swiftlet (*Aerodramus fuciphagus*) and the black-nest swiftlet (*Aerodramus maximus*), with commercial harvesting primarily focused on nests from *A. fuciphagus* (Wahyuni, 2022).

The shift from traditional cave harvesting to farming in controlled swiftlet houses (Swiftlet Farmhouses, SFHs) has enabled more sustainable and consistent production. This change has not only provided a more stable supply of EBNs but has also contributed to the increased demand for these products, as swiftlets adapt well to farmhouses built in various locations, including those near human settlements. However, environmental and habitat changes can affect the diet of the swiftlets, which, in turn, can influence the nutritional content and food safety of the harvested EBNs (Wahyuni, 2022)

## ***2.2 PORTER'S COMPETITIVE ADVANTAGE THEORY***

Porter's Competitive Advantage Theory, first introduced by Michael Porter in his 1985 book "Competitive Advantage: Creating and Sustaining Superior Performance," is crucial for understanding how firms can gain an edge in the marketplace. According to Porter, competitive advantage arises from a firm's ability to deliver goods or services at a lower cost or with greater differentiation than its competitors (Porter, 1985). In the context of Indonesia's bird's nest exports, firms that can optimize their production processes to reduce costs (through economies of scale or operational efficiencies) or those that can offer a differentiated product, such as organic or Halal-certified bird's nests, are likely to establish a competitive advantage in the global market.

Porter's theory also highlights the significance of the "value chain" in building competitive advantage. For Indonesia's bird's nest industry, this means analyzing the entire process from sourcing raw materials (bird's nests) to processing, packaging, and marketing. Firms that manage to streamline these processes while ensuring quality and authenticity will have an edge over competitors (Shukri, 2018). For example, investing in processing technologies that enhance the quality of the product or adopting certification practices that guarantee the product's safety and origin can significantly differentiate Indonesian bird's nests from those of competitors like Malaysia or Thailand (Zulkefle, 2024).

In addition, Porter introduced the "diamond model," which explains that a nation's competitive advantage is influenced by factors such as factor conditions, demand conditions, related and supporting industries, and firm strategy (Porter, 1985). For Indonesia's bird's nest exports, factor conditions include the availability of raw nests, while demand conditions refer to the consumer preferences for health products, especially in markets like China. Related industries, such as those involved in packaging and logistics, also contribute to Indonesia's competitiveness (Tangjitmanngamkul, 2019). In this context, Indonesian exporters can leverage these factors to develop strategies that enhance their competitive position globally.

## ***2.3 SUPPLY CHAIN MANAGEMENT THEORY***

Supply Chain Management (SCM) Theory focuses on the management of the flow of goods and services, including all processes that transform raw materials into final products. The theory emphasizes the importance of collaboration between suppliers, manufacturers, and distributors to improve efficiency, reduce costs, and enhance product quality (Vorst,

2004). In the context of Indonesia's bird's nest exports, SCM plays a pivotal role in ensuring that the nests are sourced, processed, and delivered to international markets efficiently and at competitive prices. Poor management of the supply chain can lead to delays, inflated costs, and inconsistent product quality, which are significant challenges for Indonesian exporters.

One of the key concepts in SCM is the "just-in-time" (JIT) system, which minimizes inventory levels and reduces waste by ensuring that products are delivered only when needed (Yang, 2021). For the bird's nest industry, implementing JIT could help minimize storage costs and reduce the risk of product deterioration, especially considering that bird's nests are highly perishable. Moreover, effective SCM practices can optimize transportation routes and inventory management, ensuring that products meet international demand while complying with various market regulations (Anaba, 2024), such as China's stringent quality standards for edible bird's nests.

Additionally, the implementation of integrated supply chain systems using technologies like blockchain is becoming increasingly important. Blockchain provides transparency and traceability, ensuring that each step in the supply chain is documented, which is crucial for maintaining product authenticity (Afrin, 2023). This is particularly relevant for Indonesia's bird's nest exports, where issues related to counterfeit products are prevalent. SCM theories, particularly those related to technology integration and efficiency improvements, will guide Indonesian exporters in adapting to modern market demands and regulatory requirements.

## ***2.4 INTERNATIONAL MARKET ENTRY STRATEGIES***

International Market Entry Strategies are frameworks that guide businesses on how to successfully enter and compete in foreign markets. The choice of strategy depends on a variety of factors, including the firm's resources, market conditions, and regulatory environments (Zekiri, 2011). For Indonesia's bird's nest exporters, several entry strategies can be applied, such as direct export, joint ventures, or licensing agreements. One of the most common strategies for firms entering foreign markets, especially in the case of smaller exporters, is direct exporting (Sadaghiani, 2011). This allows Indonesian exporters to sell their products directly to foreign consumers or businesses, bypassing intermediaries.

Another strategy that is particularly relevant for Indonesian exporters is the use of licensing and franchising in markets like China and the Middle East, where local partnerships are essential for navigating regulatory challenges and understanding consumer preferences (Welsh, 2015). Licensing agreements allow firms to maintain control over their intellectual

property, while benefiting from local partners' expertise in market entry and distribution. In China, for instance, having a local partner with knowledge of the regulatory landscape is crucial for ensuring compliance with the General Administration of Customs of China's stringent import regulations (KPMG, 2016).

In addition, the strategic use of e-commerce platforms like JD.com and Tmall has become an essential method for Indonesian bird's nest exporters to penetrate the Chinese market. These platforms offer direct access to a broad consumer base, allowing exporters to raise brand awareness and expand their market reach without the need for traditional physical stores. With the growing demand among younger Chinese consumers, especially those aged between 16 and 35, e-commerce provides an efficient avenue for brands to tap into this demographic. Furthermore, the integration of big data and digital tools on these platforms has enabled seamless cross-border transactions, overcoming geographical barriers and enhancing the consumer experience. This digital shift is particularly advantageous for small and medium-sized enterprises (SMEs), who can utilize platforms like JD worldwide to directly connect with Chinese consumers, ensuring growth and visibility in the competitive market (Verot, 2020).

## ***2.5 REGULATORY LANDSCAPE***

Regulatory compliance in international trade involves understanding and adhering to the legal requirements and standards imposed by foreign governments and international bodies. For Indonesia's bird's nest exports, this is a crucial aspect that influences their market access, particularly to countries with strict regulations like China (Halkam H. , 2024). For example, China requires edible bird's nests to undergo laboratory testing for heavy metals and microbiological contaminants, along with certifications from Indonesian health authorities (Yeo, 2021). Failure to comply with these standards can lead to penalties, delays, or even bans, severely impacting Indonesia's export capacity.

One of the main challenges in regulatory compliance is the complexity of international trade laws, which vary significantly between markets. In addition to meeting health and safety standards, Indonesian exporters must also navigate the diverse requirements regarding Halal certification. Halal certification ensures that products meet Islamic dietary laws, which is critical for consumer acceptance in countries like Saudi Arabia (Hulwati, 2025). Therefore, Indonesian exporters need to invest in certification processes and ensure that their products are in full compliance with these regulations to avoid market entry barriers.

To address regulatory challenges, exporters must invest in building strong relationships with regulatory bodies in both domestic and foreign markets. They also need to stay informed about evolving trade policies and certifications to maintain market access. Digital tools, such as blockchain for traceability, can aid in compliance by providing transparent records of product authenticity and regulatory conformity. By staying ahead of regulatory changes and ensuring consistent quality, Indonesian exporters can mitigate the risks of non-compliance and gain a competitive edge in global markets.

### **2.5.1 China's Stringent Import Regulations**

China's General Administration of Customs (GACC) has implemented strict regulatory measures governing the importation of edible bird's nests (EBN). These measures are designed to ensure the safety and quality of EBN, which is considered a luxury health food product (Socheata, 2023). The regulatory requirements include mandatory laboratory testing for nitrites, heavy metals, and microbiological contaminants, as well as the need for certification from Indonesian health authorities. Such regulations are vital to maintain public health standards, particularly given the potential risks posed by contamination in natural products like bird's nests (Ningrum, 2023). As a result, Indonesian exporters face significant challenges in complying with these regulations to maintain access to the lucrative Chinese market.

Failure to meet these stringent requirements can lead to severe consequences, including export bans and product recalls, as witnessed in past cases where non-compliant suppliers faced significant financial losses. These regulatory challenges are particularly problematic for small and medium-sized enterprises (SMEs), which often lack the resources to meet the high costs associated with certification and laboratory testing (Tirronen, 2023). Despite these challenges, complying with China's stringent regulations is essential for Indonesian exporters, as the Chinese market remains the dominant consumer of EBN globally. To address these issues, Indonesian exporters must invest in quality control measures and collaborate with local authorities to streamline the certification process, ensuring that they can continue to meet China's import standards while minimizing the risk of non-compliance (Zhang, 2024).

## **2.5.2 Halal Certification for Middle Eastern Markets**

In addition to China's regulatory requirements, Indonesian exporters must also adhere to Halal certification standards when targeting Muslim-majority countries in the Middle East, like Saudi Arabia (Qolby, 2024). Halal certification is crucial for ensuring that EBN products are processed in accordance with Islamic dietary laws, which require that the product not contain any prohibited substances and be processed in a hygienic and ethical manner (Zulkefle, 2024). This certification is issued by Indonesia's Halal Certification Agency (MUI) and requires comprehensive audits of production facilities and supply chains to ensure compliance with Halal standards.

The Halal certification process is often complex and time-consuming, requiring Indonesian producers to invest in infrastructure upgrades and staff training to meet the necessary standards. Moreover, the certification process must be renewed periodically, and failure to maintain certification can result in the loss of access to lucrative Middle Eastern markets. As Halal-certified products are in high demand by the majority Muslim population, Indonesia's ability to comply with these standards is crucial for maintaining competitiveness in the region (Santoso, 2023).

While Indonesia has made significant strides in Halal certification, Malaysia has surpassed it in terms of compliance, granting it a competitive edge in the Middle Eastern market. This discrepancy is due to Malaysia's earlier adoption of Halal certification standards and stronger government support for Halal-certified exports. As such, Indonesia must focus on improving its Halal certification processes and enhancing its competitiveness in the Middle Eastern market by ensuring that its products meet the stringent requirements set by the region's regulatory bodies (Wekke, 2025).

## **2.6 GLOBAL DEMAND AND MARKET ANALYSIS**

### **2.6.1 Growing Consumer Demand in Asia and Beyond**

The global edible bird's nest (EBN) market has witnessed exponential growth, largely driven by rising consumer demand in China, where it accounts for approximately 90% of global consumption. The demand for EBN in China is primarily attributed to the growing middle and upper classes, who are increasingly concerned with health and wellness. With urbanization and rising disposable incomes, Chinese consumers are becoming more willing to invest in premium, health-promoting products such as EBN, which is perceived to have numerous health benefits, including boosting immunity and improving skin quality (Ting H. Lee, 2021). Furthermore, the

demand for luxury health products has been buoyed by China's expanding e-commerce platforms such as JD.com and Tmall, which have made these products easily accessible to a broader consumer base, including rural areas (Verot, 2020).

Emerging markets, particularly in the Middle East, are also contributing to the rising global demand for EBN (Zulkefle, 2024). Muslim-majority countries are witnessing increased interest in Halal-certified EBN products, driven by growing awareness of the health benefits and rising consumer wealth. In these regions, the demand for premium health supplements is expanding, making EBN a popular addition to health food and beverage markets (Ukil, 2020). Moreover, the trend towards health-conscious living is not confined to Asia and the Middle East. In North America, particularly in the United States and Canada, consumers are increasingly embracing natural health foods and traditional remedies (Pramono, 2013). As part of this shift, there has been a growing interest in functional foods like EBN, which are believed to enhance overall well-being. The European market, particularly in the UK, Germany, and France, is also expanding, as consumers are willing to spend more on luxury food imports, further bolstered by rising health-conscious trends (Journo, 2023).

The burgeoning demand for EBN across these regions reflects a global shift toward healthier living, where natural products are viewed as a means to achieve better health and longevity. As global consumers become more educated about traditional wellness products, markets for EBN are expected to continue expanding (Ting H. Lee, 2021). However, to capitalize on these trends, Indonesia's EBN exporters must focus on product diversification, certification, and aligning with local market demands such as Halal and organic certifications.

### **2.6.2 Impact of Digitalization on EBN Trade**

The advent of digitalization has had a profound impact on the edible bird's nest (EBN) trade, transforming the traditional supply chain and enabling new business models. Previously, the EBN market was dominated by wholesalers and intermediaries who played a central role in distribution (Gan, 2017). However, with the rise of e-commerce, exporters are now able to reach consumers directly, bypassing traditional middlemen and achieving better margins. Platforms such as JD.com and Tmall, which facilitate direct-to-consumer transactions, have proven especially influential in China, where they provide a vast online marketplace for EBN products. These digital platforms have made it easier for Indonesian

exporters to access a broader market, creating opportunities for smaller companies to enter the global EBN trade (Verot, 2020).

Moreover, the integration of blockchain technology is further revolutionizing the EBN market by providing enhanced product traceability and ensuring product authenticity. Blockchain offers a secure, transparent way to track the entire supply chain, from the harvesting of bird nests to the point of sale, ensuring that consumers receive genuine, high-quality products (Nguyen, 2024). This is particularly important in markets like China, where counterfeit goods are a concern. By incorporating blockchain into their supply chains, Indonesian exporters can mitigate the risk of counterfeit products and build greater trust with consumers. Furthermore, digitalization has enabled the introduction of AI-powered pricing models, which help exporters optimize supply and demand in real-time, ensuring better price control and inventory management (Nweje, 2025).

In addition to these advancements, digital marketing has also opened up new avenues for Indonesian exporters to target niche consumer segments globally. Social media platforms and influencer marketing can be leveraged to educate consumers about the benefits of EBN, thereby expanding the product's reach beyond traditional luxury buyers (Prasanthi, 2024). As digital platforms continue to evolve, Indonesian exporters must invest in digital capabilities, such as e-commerce websites and digital marketing strategies, to remain competitive in the global market.

## **CHAPTER III THEORETICAL ANALYSIS AND HYPOTHESIS**

### ***3.1 THEORETICAL REVIEW AND HYPOTHESIS DEVELOPMENT***

#### **3.1.1 Economic and Regulatory Barriers**

Indonesia, as the world's largest producer of edible bird's nests (EBN), faces various economic and regulatory challenges that impact its export competitiveness. The stringent regulations imposed by importing countries, such as China's General Administration of Customs (GACC) registration and Halal certification requirements, necessitate significant compliance efforts and costs (Saputra, 2022). These regulations are essential to meet international food safety and quality standards but can be burdensome for exporters. For instance, the customs inspection and quarantine clearance for bird's nests from Indonesia to China can take around four weeks, with an additional 16% value-added tax, creating barriers to timely and cost-effective exports. The policy analysis by the Food and Fertilizer Technology Center (FFTC) highlights the importance of product safety assurance, stating that all edible-nest swiftlet business units are encouraged to obtain a Veterinary Control Number (VCN) certification. This certification process involves navigating complex regulatory frameworks, which can be challenging for exporters (Purba, 2022).

***H1: Economic and regulatory challenges, such as high compliance costs and complex export procedures, significantly hinder the global competitiveness of Indonesian bird's nest exporters.***

#### **3.1.2 Trade Policy and Cost Implications**

Trade policies and mandatory certifications play a crucial role in shaping the operational landscape for Indonesian EBN exporters. While these policies are designed to ensure product quality and consumer safety, they often entail substantial costs. The requirement for Halal certification, for example, necessitates compliance with specific religious and quality standards, adding to the operational expenses. Similarly, obtaining GACC registration involves rigorous documentation and adherence to China's import regulations, further increasing costs (Saputra, 2022). Research indicates that trade policies and mandatory certifications significantly influence the competitiveness of Indonesian EBN in international markets. The study found that Indonesian swiftlet nests are competitive in markets like China, Malaysia, Vietnam, and Singapore, but not in countries like Australia and Japan, highlighting the impact of trade policies and certification requirements on export competitiveness (Rahmawati, 2022).

***H2: Trade policies and mandatory certifications (e.g., China's GACC registration and Halal certification) increase operational costs, thereby impacting Indonesia's competitive position in the international EBN market.***

### **3.1.3 Market Diversification Opportunities**

While China has traditionally been a dominant market for Indonesian EBN, there is a growing opportunity to diversify into other regions. The Middle East, North America, and Southeast Asia exhibit increasing demand for EBN, driven by cultural preferences and health trends. For example, the Middle Eastern market places high value on Halal-certified products, aligning with Indonesia's production capabilities. Similarly, North America's expanding Asian population and interest in traditional health foods present new avenues for export growth (Antara, 2021).

***H3: Emerging demand in non-China markets such as the Middle East, North America, and Southeast Asia presents viable diversification opportunities for Indonesian EBN exporters.***

### **3.1.4 Role of Supply Chain and Value Addition**

Enhancing supply chain efficiency and incorporating value-added processing are pivotal strategies for boosting the competitiveness of Indonesian EBN exports. Streamlined logistics, reduced processing times, and improved product quality can lead to cost savings and better market positioning. Value-added processing, such as product diversification (e.g., ready-to-consume EBN products), can cater to a broader consumer base and meet varying market demands. (Purba, Competitiveness of Indonesia's Edible-Nest Swiftlet Exports, 2022) A study on the export performance of Indonesian swallow's nest commodities emphasizes that improving supply chain efficiency and product processing can enhance competitiveness. The research suggests that strategies like direct exports without intermediaries and product diversification are effective in increasing export value and market reach (Rahmawati, 2022).

***H4: Improvements in supply chain efficiency and the adoption of value-added processing significantly enhance the performance and global appeal of Indonesian EBN exports.***

### **3.1.5 Strategic Policy and Industry Support**

The sustainability and competitiveness of Indonesia's EBN sector are significantly influenced by collaborative efforts among government bodies, industry stakeholders, and exporters. Government policies that provide regulatory clarity, financial incentives, and infrastructure support can create a conducive environment for industry growth. Establishing

industry standards ensures product quality and consistency, which are crucial for maintaining international market trust (Zulkefle, 2024). Exporter support programs, including training and market intelligence, equip exporters with the necessary tools to navigate global markets effectively. The policy analysis by FFTC highlights the need for synergy between the Ministry of Agriculture, the Ministry of Trade, and other related institutions to develop the edible-nest swiftlet industry (Sulistyowati, 2024). It emphasizes that collaborative strategies are essential for strengthening the industry's sustainability and competitiveness.

***H5: Collaborative strategies involving government policy, industry standards, and exporter support programs are critical to strengthening the long-term sustainability and competitiveness of Indonesia's EBN sector.***

### **3.2 CONCEPTUAL FRAMEWORK**

Edible Bird's Nest (EBN) is one of Indonesia's high-value agricultural commodities, widely consumed for its perceived health and medicinal benefits, particularly in East Asia and Southeast Asia. Indonesia is among the world's top producers of EBN, supplying over 80% of the global market (Purba, 2022). The export of EBN contributes significantly to Indonesia's economy, generating foreign exchange and supporting rural livelihoods, particularly in areas where swiftlet farming is common. In recent years, the global EBN industry has faced dynamic changes, driven by evolving trade regulations, increasing consumer demand for certified and traceable products, and the growing importance of digitalization and e-commerce. China remains the dominant importer of Indonesian EBN, accounting for more than 70% of total exports (Siregar, 2014). However, alternative markets such as the Middle East, North America, and Southeast Asia have begun to show increasing interest, particularly in Halal-certified and value-added EBN products. Despite this potential, Indonesia's EBN exporters face significant barriers such as stringent trade policies, high compliance costs, and fragmented supply chains (Zulkefle, 2024). These challenges have prompted the need for a more structured understanding of how various economic, regulatory, and operational factors influence Indonesia's EBN export performance and competitiveness.

This conceptual framework is designed to explore how key input factors, such as trade policies and certifications, economic and regulatory barriers, and strategic policy and industry support—influence the export competitiveness of Indonesian EBN (Essential Biodiversity-derived Natural) products. These input factors affect intermediate variables such as supply chain efficiency and market diversification strategies, which in turn shape overall export performance. By examining the interactions between these elements, the framework seeks to generate comprehensive insights into how Indonesian EBN firms can strengthen

their global competitiveness through improvements in operational strategies, diversification efforts, and supportive policy mechanisms.

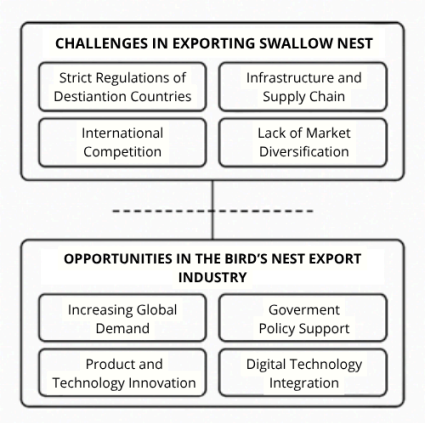


Figure 3.1  
Conceptual Framework

## **CHAPTER IV RESEARCH METHODOLOGY**

### ***4.1 TYPE AND SOURCE OF DATA***

This study utilizes qualitative data to explore the economic challenges and opportunities in Indonesia's edible bird's nest (EBN) export industry. The qualitative approach enables an in-depth understanding of stakeholder perspectives, focusing on how exporters, government officials, and trade policy experts experience and respond to regulatory and market dynamics. The research draws on both primary and secondary sources to ensure a comprehensive and balanced dataset.

Primary data are collected through semi-structured interviews and focus group discussions (McIntosh, 2015). Interviews are conducted with 10 exporters, 5 officials from the Ministry of Trade and the Agricultural Quarantine Agency, and 3 trade policy experts. These interviews provide detailed insights into regulatory barriers, market access, and industry practices (KnowFife, 2018). Additionally, focus group discussions with exporters and stakeholders allow for interactive dialogue, uncovering broader trends and challenges in the industry (Pyrialakou, 2019). Secondary data are gathered from government reports, trade documents, policy papers, academic articles, and industry publications. These sources offer valuable background and support triangulation, enhancing the validity of the research findings.

### ***4.2 RESEARCH DESIGN***

This study adopts a qualitative research design aimed at exploring the economic challenges and opportunities in Indonesia's edible bird's nest (EBN) export industry. Qualitative research is particularly suitable for this study as it allows for an in-depth exploration of the perspectives and experiences of Indonesian EBN exporters, government officials, and trade policy experts (Creswell, 2018). By focusing on interviews and focus group discussions, the research captures nuanced insights into the realities faced by stakeholders in the EBN export industry, addressing issues such as trade regulations, market diversification, and competition (Tenny, 2022). The interpretivist approach underpins this research design, which emphasizes understanding the meaning behind the experiences of participants and how they navigate the complexities of the global trade environment (Bryman, 2016).

A case study methodology has been selected for this research, focusing on the Indonesian EBN sector to explore the deeper economic and regulatory issues specific to this industry. The case study approach enables the researcher to provide a detailed, contextualized understanding of the EBN export industry, with the aim of generating insights that can inform policy-making and business strategies in the future (Yin, 2014). This method is ideal for understanding the particular dynamics of Indonesia's participation in the global EBN trade, considering the interplay of culture, policy, and economics.

### ***4.3 DATA COLLECTION TECHNIQUE AND MEASUREMENT***

#### **4.3.1 Data Collection Technique**

This study uses interview data collection. Interviews were conducted with 10 exporters, 5 officials of the Ministry of Trade and the Agricultural Quarantine Agency, and 3 trade policy experts. Exporter participants are classified by their business scale (small, medium, large exporters) and institutional roles (e.g., Ministry of Trade, Agricultural Quarantine Agency). This classification supports comparative insights during thematic analysis, helping to highlight differences in perspectives across stakeholder groups.

#### **4.3.2 Measurement**

The researcher creates interview questions that can be used for research purposes. The interview questions were created to collect data from exporters, officials of the Ministry of Trade and the Agricultural Quarantine Agency, and trade policy experts.

| Informant | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exporter  | <ol style="list-style-type: none"> <li>1. What are the main challenges that you are facing in running the current swallow's nest export?</li> <li>2. Which particular domestic or international regulations do you find most burdensome? Can it be explained?</li> <li>3. To what extent does the government's trade policy affect your company's export activities?</li> <li>4. How much do compliance costs (regulations, certifications, documentation) affect your export profit margins?</li> <li>5. Do you feel that you have enough support from the government in terms of export facilitation?</li> <li>6. Besides China, which destination countries do you think have the potential for swallow's nest exports? Why?</li> </ol> |

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|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | <ol style="list-style-type: none"> <li>7. Have you ever tried to break into markets like Japan, Europe, or the Middle East? How did it turn out?</li> <li>8. Do you do value-added processing or packaging before export? If so, to what extent does it affect the selling price?</li> <li>9. What obstacles do you face in developing value-added products?</li> <li>10. What do you think is the most needed government policy today to strengthen swallow nest exports?</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Office | <ol style="list-style-type: none"> <li>1. What are some of the common regulatory challenges faced by swallow's nest exporters today?</li> <li>2. How does the government respond to exporters' complaints related to regulatory obstacles and export bureaucracy?</li> <li>3. Is there a significant policy difference between exports to China and to other countries?</li> <li>4. What is the strategy of the Ministry of Trade in designing export policies to increase Indonesia's competitiveness in the global market?</li> <li>5. How much does the compliance cost cost the exporter bear and how does the government help reduce it?</li> <li>6. Are there any promotional programs or trade agreements that are being or will be implemented to open up access to new markets (e.g. the Middle East, Europe, Japan)?</li> <li>7. Are there any incentives or programs to encourage the local processing industry so that exporters can increase the added value of products before export?</li> <li>8. How does the government supervise the quality and safety of EBN products before they are sent abroad?</li> <li>9. What forms of technical support or training are available to exporters to increase capacity and understanding of the global market?</li> </ol> |
| Expert | <ol style="list-style-type: none"> <li>1. How do you see the structural challenges in Indonesia's bird's nest exports in terms of regulation and economy?</li> <li>2. Are current domestic regulations in line with global trade dynamics, especially for EBN commodities?</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ol style="list-style-type: none"> <li>3. In your opinion, how does Indonesia stand compared to other EBN exporting countries (e.g. Malaysia, Thailand) in terms of export regulations and efficiency?</li> <li>1. How much influence do trade policies and international compliance standards have on Indonesia's export competitiveness?</li> <li>2. Can high compliance costs be a major barrier for small and medium-sized businesses to enter the global market?</li> <li>3. In your opinion, how can national policies be aligned to lower barriers to trade, especially in high-value commodities such as EBN?</li> <li>4. How do you see Indonesia's dependence on the Chinese market in EBN exports? Is this risky?</li> <li>5. What are the potential alternative markets that can be developed and what strategies should be taken to penetrate these markets?</li> <li>6. How can Indonesia compete in non-traditional markets, given increasingly stringent food safety standards?</li> <li>7. What are the main challenges in creating an efficient and transparent EBN supply chain?</li> <li>8. What is the role of technology and innovation in increasing the added value and quality of EBN products?</li> <li>9. What do you think is the potential for the development of the downstream industry of EBN in the country?</li> <li>10. What kind of policy strategy is the most effective to strengthen the competitiveness of Indonesia's EBN exports in a sustainable manner?</li> <li>11. How can collaboration between the government, business actors, and academics be improved to strengthen this sector?</li> <li>12. What are your main recommendations for EBN export policy reform going forward?</li> </ol> |
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## **4.4 DATA ANALYSIS METHOD**

### **4.4.1 Thematic Analysis**

To analyze the qualitative data, thematic analysis will be applied. Thematic analysis is a widely used method for identifying, analyzing, and reporting patterns (themes) within qualitative data (Braun, 2006). This technique will help in organizing the data into meaningful themes that reflect the key issues facing Indonesian EBN exporters. The analysis will be conducted in several stages: first, the data will be transcribed and familiarized,

followed by the coding of key phrases and concepts. Next, the codes will be grouped into themes that address the primary research questions regarding economic barriers, market strategies, trade regulations, and policy impact. The final stage will involve interpreting the themes in light of the research objectives, providing a deeper understanding of the economic and regulatory dynamics affecting Indonesia's EBN export industry.

#### **4.4.2 Comparative Analysis**

Additionally, comparative analysis will be conducted to compare Indonesia's EBN export industry with key competitors, such as Malaysia and Thailand. This analysis will help identify competitive advantages and weaknesses in Indonesia's position within the global market. By comparing policies, pricing strategies, and market access, the study can uncover lessons from other countries' experiences and offer recommendations for improving Indonesia's export strategies. Comparative analysis is a valuable tool in qualitative research for understanding differences and similarities across cases or regions (Mello, 2021).

## **CHAPTER V**

### **RESULT AND DISCUSSION**

This study aims to explore the challenges and opportunities in swallow nest exports from the perspective of exporters in Indonesia. Using a qualitative case study approach, data were collected through in-depth interviews with swallow nest exporters from various regions in Indonesia. This chapter presents the main findings of the study and discussions that enrich the understanding of the dynamics of Indonesian swallow nest exports.

#### ***5.1 RESPONDENT CHARACTERISTICS***

Respondents in this study consisted of 10 swallow nest exporters (with small, medium, and large scale classifications), 5 government officials from the Ministry of Trade and the Agricultural Quarantine Agency, and 3 trade policy experts. They were selected using a purposive sampling method based on their relevance and experience in the swallow nest export industry. To protect the identity of the informant as part of the research code of ethics, the exporters will be referred to as exporters 1 to 10, then officials will be referred to as officials 1 to 5, while experts will be called experts 1-3.

Most exporters come from production center areas such as West Kalimantan (Kapuas Hulu), Central Java (Pekalongan and Wonosobo), and South Sumatra (Palembang). They have official permits as Registered Swallow Nest Exporters (ET-SBW), and have more than five years of experience. Respondents from the government play a role in overseeing certification (such as NKV) and trade facilitation. Meanwhile, trade policy experts provide a macro perspective on the dynamics of trade agreements such as RCEP and ACFTA.

In terms of the types of products exported, the majority of exporters focus on raw-clean (RC) nest products, which have been cleaned and processed to meet the hygiene and aesthetic standards required by the Chinese market. A smaller portion of them also deal with raw-unclean (RUC) nests, usually sold domestically or supplied to larger exporters for further processing.

Annual export volumes vary across respondents. Large-scale exporters, who are officially registered with the General Administration of Customs China (GACC), report volumes between 100 to 300 kilograms per year, with transaction values reaching IDR 2 to 6 billion, depending on quality and market demand. In contrast, small- and medium-scale exporters typically handle 20 to 50 kilograms per year, often acting as upstream suppliers to major exporters. This diversity in scale and market access provides a comprehensive picture of the industry's structure and dynamics.

## 5.2 Research Results

### 5.2.1 Key Economic and Regulatory Challenges

The researcher found out the main economic and regulatory challenges felt by Indonesian bird's nest exporters. Based on interviews conducted by researchers, the following results were obtained:

| Informant  | Economic Challenges                                                                                                                                                                                                                                                                                                                                      | Key Rules                                                                                                                                                                                                                                                                                                                                 |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exporter 1 | The main challenge for us is the changing regulations, both domestically and in the destination country. For example, for export to China, we must meet the standards of nitrite content, ET-SBW, and strict sterilization of H5N1. This process takes a lot of time and costs                                                                           | The most burdensome is the certification process and domestic quarantine. The procedure has not been integrated between agencies. We had to go back and forth between quarantine offices, laboratories, and ministries. This slows down the export process and increases costs                                                            |
| Exporter 2 | The biggest challenge is access to testing laboratories and quarantine facilities that are still limited in the region. We have to send samples to Jakarta, which makes the process long and expensive. In addition, the bureaucratic system that has not been digitized makes the export process inefficient                                            | China's regulations requiring ET-SBW certification and nitrite content checks are very strict. Many local farmers do not understand how to meet these standards, so the burden often falls on exporters. Not to mention, strict H5N1 quarantine rules add to export waiting times                                                         |
| Exporter 3 | The most noticeable thing is the uncertainty of regulations and the length of the permit management process. Sometimes our export documents are held up because of one small detail, and the clarification process is inefficient. In addition, the difficulty of accessing certification laboratories is also a problem, especially when demand is high | China's regulations are indeed the heaviest. They have very high quality standards, and one small mistake can result in the entire shipment being rejected. We once had rejection just because of a slight difference in nitrite levels. On the domestic side, the bureaucracy of certification management in the ministry is also tiring |

|            |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                 |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exporter 4 | The biggest challenge is the high logistics costs and lack of infrastructure in Eastern Indonesia. We need to send products to Java Island for quarantine and laboratory tests, which makes the export time very long. This disrupts demand from overseas buyers                                                 | Regulations from the Chinese side, especially the obligation to sterilize processing and nitrite content tests, are very burdensome. But ironically, in the country, the certification process is even more difficult because the system is not integrated and many documents have to be taken care of manually |
| Exporter 5 | The main problem for us is the limited sterilization facilities and laboratories in Kalimantan. Every time we are going to export, we have to send the nest to Java first for the sterilization process and quality test. This is clearly a waste of time and cost                                               | Export regulations to China are the most complex. Starting from the provisions of nitrite content, the origin of the nest, to the H5N1 sterilization process. However, domestically, we are actually hit by the problem of document management which is often variable and out of sync between agencies         |
| Exporter 6 | Our main challenges are two, so the first is due to the strict standards of export destination countries, especially China, and the disintegration of the export bureaucratic system in Indonesia. We often experience delays because we have to go back and forth to complete documents from different agencies | International regulations from China are very strict, especially regarding nitrite content and ET-SBW requirements. However, domestic regulations are more time-consuming, such as quarantine and laboratory testing processes that are not uniform in each region                                              |
| Exporter 7 | Our main challenges are in logistics and laboratory test costs. Since the testing and quarantine facilities are only available in major cities, we have to ship the products to Jakarta                                                                                                                          | Export regulations to China that require ET-SBW certification and nitrite content below the maximum limit are very strict. But from the domestic side, the slow and uncoordinated bureaucratic process                                                                                                          |

|             |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                    |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | or Surabaya first, and this increases the cost as well as lead time                                                                                                                                                                              | between the quarantine office, customs, and ministries also makes it difficult                                                                                                                                                                                                                                     |
| Exporter 8  | The main challenge lies in fluctuating demand from China and the complexity of domestic bureaucracy. We also have difficulty facing price competition from other countries such as Malaysia and Vietnam where export systems are more integrated | The regulations from China that we have the most difficult to meet are strict standards for nitrite content and layered documentation requirements. Domestically, unclear coordination between agencies often delays the export process, such as differences in requirements between quarantine offices and others |
| Exporter 9  | As a small-scale exporter, its biggest challenge is access to processing facilities and market information. Many technical procedures we do not understand clearly, and we do not have export specialized experts                                | The regulations on the need for laboratory tests with international standards are very burdensome because they have to send samples to other cities. The cost of testing is also not small. In addition, ET-SBW certification from China is a complicated process for small actors like me                         |
| Exporter 10 | One of our main challenges is the ever-changing regulatory uncertainty. In addition, the limited logistics infrastructure and quarantine facilities outside Java Island make the export process more expensive and slower                        | Regulations from destination countries like China are very specific and sensitive. Nitrite content requirements, sterilization processes, and documentation must be very precise. Meanwhile, domestically, we experience bureaucratic obstacles because the inter-agency system is not synchronized                |

Based on the results of interviews with swallow's nest exporters, the most dominant economic challenges are high costs and inefficiencies in the export process. This is mainly due to the limitations of infrastructure, such as the lack of testing laboratories, sterilization facilities, and quarantine centers outside Java. Many exporters have to send their products to Jakarta or

Surabaya first to meet export technical requirements such as nitrite level tests and H5N1 sterilization. As a result, logistics costs increase and export times become longer, which ultimately has a direct impact on profit margins and the confidence of international buyers. This challenge is increasingly difficult for small-scale exporters or those from the eastern region of Indonesia who are far from the center of export facilities.

In addition, regulatory uncertainty and bureaucratic disintegration are a separate economic burden for exporters. Business actors face situations where they have to deal with many agencies that are not well coordinated, such as quarantine offices, laboratories, ministries, and customs, which often have different standards or procedures. This disintegration not only slows down the export process, but also incurs additional costs for documentation, clarification, or even process iteration. For small exporters, this challenge can be particularly burdensome as they do not have sufficient human resources or technical knowledge to deal with complex and fickle systems. The combination of high cost burdens, logistical inefficiencies, and complex bureaucracy makes Indonesia's EBN sector face serious pressure in increasing competitiveness in the global market.

In terms of primary regulations, the majority of swallow's nest exporters highlight two main sources of burden, namely regulation from export destination countries and an unintegrated domestic regulatory system. From the international side, export requirements to China are considered to be the most complex and stringent. Among the most commonly mentioned are the obligation of ET-SBW certification, limitation of maximum nitrite levels, and the obligation of the H5N1 sterilization process. Small mistakes, such as slight differences in nitrite levels or imprecise paperwork, can lead to the entire shipment being rejected. The stringency of these standards causes exporters to have to perform repeated testing and processing, which has an impact on increased costs and the risk of loss.

Meanwhile, from the domestic side, almost all exporters complain about bureaucratic fragmentation and the lack of integration of the export licensing system. The certification process involving many agencies such as quarantine offices, laboratories, and related ministries is still carried out manually in many regions and is not synchronized with each other. Some exporters state that they have to go back and forth to various agencies just to get one certificate. This situation is exacerbated by the difference in procedures between one region and another. As a result, the export process becomes slow and inefficient. For small-scale exporters, this challenge is more difficult due to limited resources in dealing with technical and inconsistent regulations. Therefore, both external and internal regulations are currently considered as the main obstacles to the smooth export of Indonesian EBN. Key economic and regulatory

challenges were also conveyed by officials from the Ministry of Trade and the Agricultural Quarantine Agency.

| Informant | Economic Challenges                                                                                                                                                                                                                                                                                                                                                      | Key Rules                                                                                                                                                                                                                                                                                                                    |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Office 1  | The main challenge stems from the differences in standards and regulations of destination countries, especially China, which are very strict in terms of food quality and safety. Domestically, the licensing and certification process is still not integrated between institutions, so exporters often experience delays                                               | We are in the process of drafting an integrated export service system that will combine multiple procedures in one door, especially for commodities such as EBN. We are also actively in dialogue with exporter associations to develop more responsive policies                                                             |
| Office 2  | The main challenge is in meeting the quarantine and biosafety requirements set by destination countries, especially China. Many exporters have difficulty meeting ET-SBW standards and very low nitrite maximum limits. In addition, the sterilization process for the H5N1 virus is also still a challenge for incomplete facilities                                    | We in Barantan have developed an electronic licensing system and simplified quarantine procedures. We also provide technical guidance and socialization of destination country regulations on a regular basis to exporters. However, there is still a need to improve infrastructure and system integration between agencies |
| Office 3  | The main challenge is the many differences in standards between one country and another. For example, China requires very specific and frequently changing bilateral protocols. This makes it difficult for exporters to adjust. On the other hand, some countries do not have specific regulations for bird's nests, so the process of negotiating exports is also long | We are intensely discussing with business actors and technical ministries to find solutions, including forming a National Working Team for Priority Commodities such as EBN. We also propose digitizing the export process so that document processing is faster and does not overlap                                        |

|          |                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Office 4 | The main challenge is the difference in technical standards between countries and the need to comply with bilateral protocols, especially for the Chinese market. Many exporters also face difficulties with domestic licensing bureaucracy that has not been fully integrated between ministries. This leads to duplication of processes and costs        | We regularly hold consultative meetings with exporter associations and have submitted recommendations for licensing harmonization to technical agencies. One of the concrete steps is to accelerate the integration of the national export system through INATRADE and the Indonesia National Single Window                                                                           |
| Office 5 | Some of the challenges we encountered in the field included compliance with the destination country's technical standards, such as maximum nitrite levels and sterilization against the H5N1 virus. In addition, there are still many swallow houses and processing units that have not been officially registered or do not meet export hygiene standards | We at the Agricultural Quarantine Agency are actively conducting socialization and technical guidance. We also develop digital-based service systems such as IQFAST to speed up certification and licensing services. Complaints from exporters are also our basis for regulatory improvements, such as simplification of sterilization procedures and integration of facility audits |

Based on interviews with officials from the Ministry of Trade and the Agricultural Quarantine Agency, the economic challenges faced by swallow's nest exporters are indeed recognized and justified by the government. Officials highlighted that the biggest burden comes from differences in technical and regulatory standards between countries, especially from major markets such as China which have very strict requirements. Requirements such as maximum nitrite levels, ET-SBW certification, and H5N1 sterilization obligations require adequate technical facilities, which are not evenly distributed throughout Indonesia. The government also acknowledged that delays and inefficiencies in the export process are still obstacles due to the licensing and certification system that has not been fully integrated between institutions. This leads to duplication of processes and additional costs that must be borne by exporters, especially small business actors or those from outside Java.

Despite this, the government has shown that it is not passive in responding to this issue. There are various initiatives that are being or have been implemented, such as the development of digital licensing systems (e.g. IQFAST and INATRADE), simplification of quarantine procedures, and the establishment of a National Working Team to accelerate the reform of priority commodity export services such as EBN. This effort also includes regular consultations with exporter associations to develop policies that are more responsive to field dynamics. This means that officials confirmed the economic challenges complained about by exporters, but also emphasized that the improvement process is underway even though it is admitted that it is not fully optimal. Technical challenges and infrastructure inequality remain significant homework, and need cross-ministerial support to address them comprehensively

Government officials from the Ministry of Trade and the Agricultural Quarantine Agency generally show responsiveness to exporters' complaints related to regulatory and bureaucratic obstacles to exports. They explained that various efforts are being made to simplify and accelerate licensing procedures, for example by building digital-based integrated export service systems such as INATRADE, Indonesia National Single Window (INSW), and IQFAST. This step aims to reduce process overlap between agencies and cut the time and costs that exporters have been complaining about. On the other hand, the government also encourages cross-ministerial coordination so that certification and quarantine procedures no longer run separately and manually.

In addition, the government is also actively engaging in dialogue and consultation with business actors, exporter associations, and other technical ministries. Several officials mentioned the formation of a National Working Team for priority commodities such as swallow's nests as a concrete form of handling strategic issues. At the technical level, socialization and guidance to exporters are also carried out periodically, especially regarding the standards of export destination countries such as China. This shows that the government is not only listening to complaints, but also starting to take institutional and structural steps to improve the system. However, they also acknowledged that implementation in the field still faces challenges, especially in terms of limited infrastructure and suboptimal inter-agency coordination. Experts also justified the conditions regarding the economic challenges faced by exporters. The statements of the experts can be seen in the following table.

| Expert   | Statement                                                                                                                                                                                                                                       |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Expert 1 | The structural challenges lie in the fragmentation of export policies between agencies, lengthy licensing bureaucracy, and the lack of processing facilities and international standard test laboratories. Economically, EBN is classified as a |

|          |                                                                                                                                                                                                                                                                                                                                                                                             |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | premium commodity but has not received proportionate incentives or fiscal support. Some of our regulations are still not adaptive. For example, food safety and traceability standards are still not uniform between institutions. While destination countries are increasingly demanding transparency of product origin and certification efficiency, we still use a lot of manual systems |
| Expert 2 | The main challenge lies in the inefficient cross-agency bureaucracy. For example, the quarantine, sanitation certification, and export processes are not one-stop-shop. Economically, exporters are still burdened with production and certification costs because there is no integration of facilities.                                                                                   |
| Expert 3 | Indonesia's EBN exports face serious structural challenges, ranging from complex technical regulations to the lack of export infrastructure. Certification and testing are still scattered across many institutions, making the process slow and costly                                                                                                                                     |

The main challenges faced by swallow's nest exporters in Indonesia, according to experts, are closely related to complex structural and bureaucratic problems. The export regulation system is considered to be still fragmented between institutions, causing the licensing process to be long and inefficient. Procedures such as quarantine, sanitation certification, and export documents have not been integrated into one integrated service system. This results in duplication of processes and lengthening export times. On the other hand, business actors have to face different technical provisions from each agency, even though export destination countries increasingly demand high standards, traceability, and procedural efficiency.

From the economic side, EBN exports are classified as high-value commodities but still receive less attention in the form of incentives or adequate fiscal support. Experts consider that production costs, including laboratory testing and certification costs, are still too high due to the lack of facility integration. Processing facilities and international standard laboratories are generally concentrated on the island of Java, making exporters from other regions have to bear additional logistics costs. In addition, the system that still relies heavily on manual processes also adds to the cost and time burden. This situation weakens the competitiveness of Indonesian exporters compared to competitor countries such as Malaysia or Vietnam which have a more coordinated and efficient export system.

Bird's nest exporters in Indonesia face major economic and regulatory challenges, which have a significant impact on the sustainability and competitiveness of this industry in the global market. One of the main challenges comes from the strict regulations of destination countries, especially China, which is the world's largest consumer of bird's nest. The Chinese

government has set a number of technical requirements that must be met by Indonesian exporters, such as a maximum nitrite content of 30 ppm, a sterilization process using heat to eliminate the H5N1 virus, and the obligation for business actors to become Registered Bird's Nest Exporters (ET-SBW) and obtain certification from the General Administration of Customs of the People's Republic of China (GACC) (Saputra et al., 2022).

The process of fulfilling these regulations is not only costly, but also time-consuming and labor-intensive. Many small and medium enterprises (SMEs) have difficulty meeting the standards set, either due to limited technology, skilled labor, or access to adequate information. For large, established companies, these costs may be surmountable; However, for MSMEs that are just starting to penetrate the export market, regulatory barriers can be a major barrier to growth (Purba et al., 2022). At the domestic level, the licensing bureaucracy that is still fragmented between central and regional institutions adds to the complexity. The process of managing permits such as Veterinary Control Numbers (NKV), sanitation certificates, and quarantine verification often takes a long time and additional costs. Processing, sterilization, and quarantine facilities that meet export standards are still limited, especially in production centers outside Java, such as Kalimantan and Sulawesi. This causes product distribution to export ports to be inefficient and risks reducing product quality (Sulistiyowati et al., 2024).

In addition, the absence of fiscal incentives or tax relief for swiftlet exporters also adds to the burden on business actors. Amid the government's efforts to encourage non-oil and gas exports through the Gratieks (Three Times Export Movement) program, swiftlet industry players feel that concrete support such as processing technology subsidies, logistics incentives, and reduced retribution rates are still very minimal (Purba, Sudaryanto, & Rafani, 2022). The lack of integration between central and regional policies in quality control and certification also creates overlapping that confuses business actors, thus reducing supply chain efficiency. The imbalance in trade policy is also a concern. According to Siregar (2014), although Indonesia has a comparative advantage in natural-based agro products such as swallow's nests, there is still a gap in the utilization of market opportunities due to weak trade diplomacy and the suboptimal adjustment of the export structure to the demand of the destination country. This shows that the challenges lie not only in production and logistics techniques, but also in the national macro strategy in strengthening the bargaining position in the free market such as in the framework of the ASEAN-China Free Trade Agreement (ACFTA).

When these challenges are not addressed systematically, the impact can spread to the upstream sector. Local swallow farmers and cultivators will experience a decrease in selling prices due to dependence on middlemen and large exporters, as well as limited access to reach

direct markets. Therefore, a comprehensive and equitable export policy reform is needed, starting from simplifying regulations, strengthening logistics and quarantine infrastructure, to protecting and empowering local business actors who are the foundation of the Indonesian swallow's nest industry.

### 5.2.2 Trade Policy and Compliance Fees

The researcher sought to find out how trade policies and compliance costs affect the trade activities of Indonesian bird's nest exporters. Based on interviews conducted by researchers, the following results were obtained:

| Informant  | Trade Policy                                                                                                                                                                                                                                                                                                                                     | Compliance Fees                                                                                                                                                                                                                                               |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exporter 1 | It has quite a big influence. Unfortunately, the current policy does not fully support business actors. There are no fiscal incentives, and we have to bear the high costs for laboratory tests, logistics, and certification. Yes, if a competing country like Thailand is more efficient because of the support of their export digitalization | Compliance costs can suck up to 20–30% of our margins. This includes ET-SBW fees, laboratory tests, and freight forwarding services. For small exporters, this can be very burdensome, even making them unable to export directly                             |
| Exporter 2 | In general, government policies are still not proactive. We haven't seen any real support that can help export SMEs like us to enter the global market directly. Most small exporters like us still rely on third parties in Singapore.                                                                                                          | It's huge. I estimate that 25–35% of our potential profits are spent on administrative, certification, and logistics costs. In fact, if the cost can be reduced, we can significantly increase the export volume                                              |
| Exporter 3 | Existing policies should be helpful, but their implementation is still weak. For example, trade promotion programs only target large players. SMEs or medium-sized exporters like us are                                                                                                                                                         | We have to allocate almost 30% of the export costs for documentation and certification matters. When compared to neighboring countries like Malaysia, they are more efficient. Indonesia is still lagging behind in terms of logistics and compliance systems |

|            |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                               |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | less involved. This makes it difficult for us to expand the market                                                                                                                                                                                                                                              |                                                                                                                                                                                                                               |
| Exporter 4 | Honestly, I haven't felt the benefits yet. There are several programs from the ministry, but they are not on target. For example, more export training is given to developed regions. Even though we in this area are in dire need                                                                              | Very big. We estimate that at least 30% of our total costs are spent just to comply with regulations and take care of paperwork. This does not include laboratory shipping costs or third-party costs to speed up the process |
| Exporter 5 | It has a huge influence, but unfortunately it has not supported it directly. We see that there is no policy that encourages the efficiency of the EBN export process, especially for regional business actors. Very minimal incentives or facilitation                                                          | Quite big. About 25% of our profits are eroded just to make sure all paperwork, testing, and certification are met. If there is an integrated export digitalization system, of course this can be very helpful                |
| Exporter 6 | Quite significant. For example, when there is an easing of exports to China or a new trade agreement, we can export more smoothly. But if there is tightening, especially related to quotas or additional inspections, it will have an immediate impact on the smooth running of exports and operational costs. | It's huge. It can reach 25-35% of the total export cost. We have to allocate a special budget just to meet the procedure, and this certainly reduces our margins, especially for markets with tight price demands             |
| Exporter 7 | We have not felt the immediate impact yet. In fact, sometimes policies change without adequate socialization, such as changes in export forms or new policies regarding inspections. This made it                                                                                                               | Quite big. The cost of certification, testing, and document handling can cut 20–30% of our export margin. Often we cannot pass on these costs to the buyer, thus reducing profits                                             |

|             |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                               |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | difficult for us to adjust the production process                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                               |
| Exporter 8  | The impact is quite large. For example, when there is a policy from the Ministry of Trade that simplifies export procedures to China, our shipments increase. But if there is no coordination with other ministries, it will become a new obstacle because there are additional requirements that suddenly arise | Very big. In our calculations, compliance costs can reduce margins by up to 35%. Especially if there is an unexpected laboratory test or revision of documents, it can cause export delays and rejection from buyers                                          |
| Exporter 9  | We are rarely directly exposed to that policy. Information about new regulations, incentives, or facilitation programs is also difficult for us to access. In fact, many small exporter friends like me rely more on info from community WhatsApp groups                                                         | Very big. Compliance fees can take up more than 40% of our revenue. That is why many small exporters choose to sell to large exporters alone rather than take care of everything themselves                                                                   |
| Exporter 10 | Quite significant. For example, when the government opens export routes to new countries or provides trade promotion facilities, we can get new buyers. But when policies change suddenly, the export process can be stalled, even canceled                                                                      | In our experience, about 25–30% of our export operational costs are used to meet compliance requirements. That includes the cost of laboratory tests, certifications, and audits. This affects the margin quite largely, especially if buyer demand decreases |

Based on the statements of exporters, the current trade policy is felt to be not fully on the side of business actors, especially small and medium exporters (SMEs). Many of them assessed that although there are several government programs that aim to support exports, their implementation is not on target and does not reach actors in the regions. Most of the promotional and training assistance is considered to only target developing regions or large exporters. As a result, small exporters struggle to reach the global market independently and still rely on third parties, such as intermediaries in Singapore. Policy instability and lack of

socialization of regulatory changes also add to the administrative burden, which makes the export process slow and inefficient.

In terms of compliance costs, exporters reveal that they have to allocate between 20% to more than 40% of profit margins just to meet export requirements. This fee includes ET-SBW certification, laboratory testing, facility audits, freight forwarding services, and document management that often changes without notice. This is especially burdensome for exporters outside Java who have to send products to major cities for testing. Without policy support such as fiscal incentives, digitization of export services, and coordination between ministries that ease the burden, the competitiveness of Indonesian exporters will be weak compared to competitor countries such as Malaysia or Thailand which are more integrated in their export systems. This was justified by the following officials.

| Informant | Trade Policy                                                                                                                                                                                                                                                                                                                       | Compliance Fees                                                                                                                                                                                                                                                                       |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Office 1  | We focus on market diversification and strengthening the branding of Indonesian products. EBN is included in priority commodities for the development of non-traditional markets such as the Middle East, as well as bilateral strengthening with Japan and Korea. We also encourage the export of value-added processed products  | We realize that compliance costs can reach 30-40% of total export costs. For this reason, we are exploring cooperation with accredited laboratories and simplifying export document procedures. The goal is to cut time and costs without sacrificing quality                         |
| Office 2  | In terms of quarantine, we encourage the improvement of sanitation standards and the improvement of quality testing laboratory facilities in the production center area. We are also strengthening coordination with the Ministry of Trade and other technical agencies to build a more efficient risk-based export service system | We recognize that the costs of certification, laboratory testing, and quarantine processes can be burdensome, especially for SMEs. Therefore, we encourage the establishment of laboratories and communal processing houses to reduce the load per unit and speed up the test process |

|          |                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                        |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Office 3 | We focus on two things: expanding the market and strengthening bargaining power in trade negotiations. We map out potential countries for EBN exports and prepare trade agreement instruments so that import tariffs can be lowered, and technical provisions can be negotiated so as not to burden exporters too much         | Compliance costs can be a differentiating factor between competing countries. Thailand and Malaysia have already built an integrated system so that the cost is lower. We encourage simplification of cross-ministerial rules and encourage the use of joint certification so that a single laboratory test can be applied to multiple export purposes |
| Office 4 | We use a priority commodity-based approach. For EBN, we support efforts to downstream and increase the promotion of processed products to non-traditional countries. We are also mapping out key non-tariff barriers facing exporters to resolve through diplomatic approaches or bilateral agreements                         | Compliance costs such as ET-SBW certification, nitrite laboratory tests, and quarantine processes can be very high. We encourage the use of joint laboratories, as well as encourage cooperation with logistics SOEs to cut transportation and storage costs. However, this effort is still in stages                                                  |
| Office 5 | From a technical perspective, we are working with the Ministry of Trade in supporting technical diplomacy, including the harmonization of SPS (Sanitary and Phytosanitary) standards. Upgrading processing facilities and testing laboratories is also part of our strategy to increase the credibility of Indonesian products | It is undeniable that costs such as laboratory certification, sterilization, and facility audits can reach millions of rupiah per batch. We are working to reduce this through more affordable accredited testing facilities and encourage the construction of regional laboratories to reduce logistics costs                                         |

Government officials recognize the importance of more adaptive and strategic trade policies in supporting swallow's nest exports. Their main focus includes market diversification, expansion of bilateral trade agreements, and strengthening competitiveness through value-added processed products. EBN is seen as a viable priority commodity to be developed

into non-traditional markets such as the Middle East, Japan, and South Korea. Some of the concrete efforts that are being carried out include technical diplomacy, promotion of downstream products, mapping of non-tariff barriers, and harmonization of sanitary and phytosanitary standards. Officials also emphasized the importance of downstreaming to increase export value and reduce dependence on a single market such as China.

In the context of compliance costs, officials realize that the burden borne by exporters, especially SMEs, can reach 30–40% of the total export cost. Therefore, they responded by encouraging the simplification of export procedures, building accredited regional laboratories, and expanding testing facilities and communal processing houses in the production center area. There are also initiatives to encourage joint certification across export destinations so that one laboratory test can be widely applied, as well as establishing logistics cooperation with SOEs to reduce transportation and storage costs. Although these measures are still in the stage of graduation or development, the government seems to be showing a policy direction that is increasingly responsive to the complaints of business actors. The trading policies and compliance fees according to experts are as follows.

| Expert   | Statement                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Expert 1 | When international standards are not anticipated by domestic policies, exporters will bear their own costs. This reduces margins and weakens the bargaining position in the global market. The cost for certification, facility audits, laboratory testing, and export documentation can be very expensive for SMEs. Without state intervention, SMEs will tend to sell to intermediaries or unofficial channels. |
| Expert 2 | Inconsistent or fickle policies create uncertainty for exporters. High international standards will continue to grow, and if it is not balanced with domestic reforms, competitiveness will continue to weaken.                                                                                                                                                                                                   |
| Expert 3 | If it cannot meet international standards, the market will be closed. In addition, if domestic policies do not support efficiency, then exporters' margins will be eroded. The cost of obtaining permits, certifications, and audits is very high for SME scale. Without government intervention, small actors will only become subcontractors for large exporters or even unable to penetrate the market at all. |

Based on interviews with experts, it can be concluded that the current domestic trade policy and regulations are not enough to facilitate the competitiveness of Indonesian EBN exporters, especially small and medium enterprises (SMEs). The first expert emphasized that when national policies fail to anticipate international standards, such as food safety certification, traceability, and facility audits, then the cost burden is borne entirely by the

exporter. This makes profit margins shrink and weakens Indonesia's bargaining position in the global market. Without fiscal policy support or procedural subsidies, SMEs will be forced to sell through intermediaries or even through unofficial channels because they cannot afford the high compliance costs.

In addition, policies that are inconsistent, often changing, and not coordinated between institutions actually create business uncertainty. As stated by the second and third experts, regulations that do not support efficiency will have a direct impact on profitability and sustainability of exports. The high costs for permits, certifications, and testing mean that small exporters can only act as subcontractors for large exporters, or be marginalized from the market altogether. Experts emphasized the need for comprehensive domestic policy reforms, ranging from the integration of export service systems, the establishment of affordable regional laboratories, to the provision of incentives or procedural subsidies for SMEs so that they do not continue to be in a weak position in the export value chain.

Trade policies that do not fully support the swallow's nest industry have become a major obstacle to increasing Indonesia's global competitiveness. One of the main issues is the slow harmonization of export standards between Indonesia and trading partner countries. Although domestic regulations have largely been adjusted to international standards, bureaucratic processes and inter-agency discontinuities often lead to inefficiencies in fulfilling export documents (Purba et al., 2022). This is exacerbated by the suboptimal integrated export service facilities and the partial digitalization of export permit systems in various regions.

The cost of complying with export regulations, including certification, quality audits, quarantine, and compliance with technical standards such as heating processes and maximum nitrite levels, has an impact on the high operational costs of Indonesian exporters (Saputra et al., 2022). Meanwhile, competing countries such as Malaysia and Thailand have already implemented a systemic approach to logistics cost efficiency and regulatory compliance, including through full digitalization of the licensing system, integration of ports and industrial areas, and fiscal incentives for exporters (Purba et al., 2022).

Indonesia also still faces obstacles due to fragmentation of export governance, especially between the central and regional governments. Differences in interpretation and procedures between regions cause business actors to have to bear additional unnecessary costs, including for transportation to sterilization facilities and testing laboratories that are concentrated in big cities such as Jakarta and Surabaya (Purba et al., 2022). As a result, many small and medium exporters choose to use third-party export services, such as through Singapore or Malaysia, to be able to penetrate the global market efficiently. This dependency causes the loss of potential national added value and reduces Indonesia's competitiveness as a

direct exporter in the eyes of the international market (Purba et al, 2022). In fact, Indonesia has great potential in this industry, which if supported by integrated and pro-export trade policy reforms, can elevate Indonesia's position to become a highly efficient exporter. Efforts to harmonize regulations, accelerate the digitalization of permits and certification, and build export centers based on production areas are urgent needs in encouraging increased competitiveness of the national bird's nest industry.

### 5.2.3 Market Opportunities for Indonesian Exporters Outside China

The exporter informant said that there are market opportunities outside China. The statements of each informant regarding market opportunities outside China are as follows.

| Informant  | Market Opportunities Outside China                                                                                                                                                                                                         | Experience Trying in Other Markets                                                                                                                                                                                                                       |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exporter 1 | United Arab Emirates and Japan. The demand there is increasing, especially for bird's nest products that have been processed into drinks or supplements. They are more interested in added value than raw materials                        | We have sent samples to Japan and UAE. The response is good, but entering the market requires strong branding and quality recognition. Nowadays we still depend on China because it is more familiar                                                     |
| Exporter 2 | We see great potential in South Korea and Taiwan. There, EBN products began to be used in cosmetics and health foods. Unfortunately, there is no clear trade route from Indonesia to those countries                                       | We once sent processed products as private labels to Dubai, but the demand was not stable because the promotion from the Indonesian side was very minimal as well                                                                                        |
| Exporter 3 | I see South Korea as a potential market. They have a market for premium health products. But the obstacle is that our products are still considered not to have a strong branding, and many importers there are doubtful about food safety | We have already tested exporting to Japan through local distributors. The initial response was good, but the volume was small and the requirements were very strict. We are still trying to understand the market tastes and distribution channels there |

|            |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                    |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exporter 4 | We see the Middle East and South Korea markets as quite promising. There, the demand for EBN products in the form of health drinks and cosmetics is growing. But we still have difficulty reaching buyers due to the lack of promotion from the government | I tried to go through a trade show in Dubai, but the results were not optimal. Many potential buyers are interested, but they need quality assurance and supply sustainability, while our capacity is still limited                |
| Exporter 5 | United States and the United Arab Emirates. In both countries, there is a growing trend of consumption of natural health and beauty products. Unfortunately, we don't have direct access to distributors or buyers from there                              | We have been to a food fair in Frankfurt. Many are interested, but the difficulties are in documents and the trust of foreign buyers in Indonesian products. We still lost promotion to Malaysia and Thailand                      |
| Exporter 6 | We see Japan and South Korea as promising alternative markets. Consumers there appreciate natural and functional products. In addition, the cosmetics segment of EBN is also starting to develop in Europe                                                 | Already. We had entered Japan through a B2B partnership. The challenges are great in the early stages, as they are very detailed to documentation and proof of origin. But once it succeeded, the repeat order was quite promising |
| Exporter 7 | We are interested in Middle Eastern markets, such as Saudi Arabia and the UAE. They have high purchasing power and consumers like natural health products. However, we still have difficulty accessing importers from the region                           | We have sent samples to Japan and UAE through distributors, but there has been no follow-up transaction as they ask for products in processed form, while we are still exporting raw nests                                         |
| Exporter 8 | South Korea has great potential because they have a market segment that is open to natural health products. But a different approach is needed because their                                                                                               | We have sent small quantities to Japan several times, but the demand is still low because we need processed products with added value. As for Europe, we have not entered because the                                              |

|             |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                           |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | consumers are more critical of the origin of the product and its benefits                                                                                                                                                                        | requirements are very complicated, especially on labelling and additives                                                                                                                                                                                                                  |
| Exporter 9  | In my opinion, South Korea and Vietnam are quite potential. Consumers there are starting to be interested in functional products, especially health. But we don't know how to penetrate that market yet                                          | Never in person. There was a buyer from Japan who asked for samples, but because we couldn't meet the technical specifications and documents, we didn't proceed                                                                                                                           |
| Exporter 10 | United Arab Emirates and South Korea. In the UAE, luxurious lifestyles and health awareness are driving the demand for EBN. In South Korea, the trend of cosmetics and functional foods makes EBN have a great opportunity if processed properly | We have successfully exported to the UAE in the form of liquid processed products, and the results are quite good. But for Europe, it is still difficult because the labeling and certification requirements of animal products are very strict and it takes a long time to meet them all |

From the point of view of exporters, the market opportunities for swallow's nest (EBN) outside China are quite promising, especially in regions such as the United Arab Emirates (UAE), Japan, South Korea, and even the United States. These markets show great interest in EBN products in processed forms such as health drinks, supplements, or natural cosmetics. Consumers in those countries tend to look for products that are not only of high quality, but also have added value. This provides an opportunity for Indonesian exporters to downstream products to be more competitive. Healthy lifestyles, awareness of the benefits of EBN, and premium consumption trends also strengthen market potential outside China.

However, most exporters still face obstacles in accessing these new markets. Commonly complained about include the lack of promotion and government support, the absence of clear trade routes, and the difficulty of building trust and branding of Indonesian products. Some exporters have tried to explore the Japanese, South Korea, and Middle Eastern markets by sending samples or attending trade shows. Although the initial response was quite positive, the majority of exporters considered that entering the market required a strong branding strategy, quality assurance, and the ability to meet very strict international standards, especially in terms of documentation, labeling, and food safety.

There are also exporters who have successfully penetrated the UAE and Japanese markets through B2B cooperation or partnerships with local distributors. They report that although the initial process is difficult and time-consuming, once the product is received and trusted, the chances of repeat orders are quite large. This success shows that with the right strategic approach such as the provision of processed products, strengthening proof of origin and safety, and adjusting the local tastes of markets outside China can be an important alternative for Indonesia's EBN exports. However, to be able to develop significantly, policy interventions are needed that support promotion, simplification of access, and facilitation of branding and certification in destination markets. This was justified by the official informant as follows.

| Informant | Opportunities Outside China                                                                                                                                                                                                                                                                                                                                      |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Office 1  | True. We are strengthening trade cooperation within the framework of CEPA with Middle Eastern countries, and exploring promotional channels through the Dubai Expo. For Japan and Korea, we are designing a branding program based on health and beauty products                                                                                                 |
| Office 2  | We support trade diplomacy through strengthening animal health insurance systems and traceability. Indonesia is also developing health protocol documents with the UAE and updating the MoU with Japan. Our focus is to ensure that EBN Indonesia's products can be accepted with rational terms                                                                 |
| Office 3  | True. We are completing the Indonesia-UAE CEPA and encouraging the strengthening of trade with South Korea and the ASEAN+3 region. In Europe, we want to include EBN in the priority list within the framework of the IEU–CEPA. We also continue to encourage trade exhibition programs and promotion of processed products through trade representatives abroad |
| Office 4  | We have compiled a roadmap for promoting EBN exports to Middle Eastern countries, focusing on value-added products such as health drinks and cosmetics. Trade exhibitions such as Trade Expo Indonesia and Gulfood are also used to introduce Indonesian brands. In the long term, we also target technical cooperation with Japan and Korea                     |
| Office 5  | We support the Ministry of Trade and Foreign Affairs in approaching partner countries. At the technical level, we are drafting equivalency documents and Mutual Recognition Agreements for EBN with several countries, so that the export process can be easier and faster                                                                                       |

From the perspective of officials, the opportunity to export swallow's nest outside the Chinese market is indeed recognized as very strategic and is becoming the main focus in Indonesia's trade diplomacy agenda. The government through various ministries is encouraging market expansion to Middle Eastern countries, Japan, South Korea, and the European region. The strategy includes the preparation of an export roadmap based on value-added products such as health drinks and cosmetics, as well as active involvement in international trade exhibitions such as Dubai Expo, Gulfood, and Trade Expo Indonesia. This effort is also supported by trade cooperation such as Indonesia-UAE CEPA and IEU-CEPA which aims to facilitate market access and reduce tariff and non-tariff barriers.

In addition to the trade approach, the government also strengthens technical and regulatory aspects to ensure that EBN Indonesia's products can meet international standards. This includes the development of animal health protocols, traceability systems, and efforts to harmonize standards through Mutual Recognition Agreements (MRAs) and equivalency documents. This step is especially important considering that markets such as Japan, Korea, and Europe have strict requirements regarding food safety and product origin. By building an internationally recognized quality assurance system, the government hopes to increase the competitiveness of Indonesia's EBN while strengthening its bargaining position in trade negotiations. The experts also conveyed the potential of markets outside China as follows.

| Expert   | Statement                                                                                                                                                                                                                                                                 |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Expert 1 | Potential markets include Japan, South Korea, the United Arab Emirates, and the United States. The strategy is to strengthen branding, participate in international exhibitions, and develop processed products that suit local tastes such as health drinks or cosmetics |
| Expert 2 | Potential alternative markets include Japan, South Korea, and the Middle East. The strategies needed are market education, national brand development, and diaspora involvement in trade promotion                                                                        |
| Expert 3 | The Middle East and East Asia markets are promising. The strategy is to build the Indonesian EBN brand, adjust local certification standards, and place a special trade attaché for EBN                                                                                   |

Experts emphasized that the potential of the EBN (edible bird's nest) market outside China is huge, especially in Japan, South Korea, the United Arab Emirates (UAE), and the United States. These countries are showing an increasing trend of consumption of natural-based health and beauty products, making EBN a relevant commodity. However, to be able to penetrate the market effectively, experts emphasize the importance of strengthening national

branding. EBN Indonesia products must be packaged in a form that suits the preferences of local consumers, such as functional drinks, supplements, or cosmetics, not just in the form of raw nests.

In addition to branding, other strategies are market education and targeted promotion. Consumer education in destination markets about the benefits of EBN as well as product quality and safety assurance is important, especially in markets with strict regulations such as Japan and Korea. Experts suggest that Indonesia increase participation in international trade fairs and involve the Indonesian diaspora as a bridge of culture and promotion. Diaspora can be an informal promotional agent who understands local tastes and helps create early trade connections, especially for SMEs. Also highlighted is the need for customization of certification and specialized diplomatic support. Countries such as Japan, South Korea, and the UAE have very specific standards regarding food safety and product origin. Therefore, experts are urging the government to establish an internationally acceptable certification system and to place trade attachés or special officers for EBN in the target countries. With this support, exporters will not only be better prepared for technical requirements, but also have more open and diplomatically facilitated market access.

Although China remains the main market for Indonesian bird's nest, with consumption reaching more than 90% of total exports (Purba et al., 2022), sole dependence on one market poses strategic risks. Changes in quarantine policies, geopolitical issues, or economic fluctuations in China can directly threaten the sustainability of Indonesian exports. Therefore, diversifying export markets is an important strategy that must be improved immediately.

Several countries such as the United States, the United Arab Emirates, Japan, and South Korea show an increasing trend in demand for processed bird's nest products, especially those packaged in the form of functional drinks, supplements, and beauty products (Sulistiyowati et al., 2024). This market potential is very large considering the increasing global public awareness of the health and beauty benefits of bird's nest-based products. However, Indonesia's penetration into this alternative market is still relatively low. This is due to several factors, including weak trade promotion strategies, the absence of strong national branding for Indonesian bird's nest, and limited bilateral trade agreements specifically for bird's nest commodities (Rahmawati et al., 2022). On the other hand, competing countries such as Malaysia have successfully utilized diplomatic cooperation and strong nation branding strategies to instill a quality image in non-traditional export markets.

Market diversification is not only relevant to expand export reach, but also as a long-term risk mitigation measure. By intensifying promotions in the markets of Middle Eastern and East Asian countries, and optimizing digital platforms for global marketing, Indonesia has

a great opportunity to reduce dependence on China. In this regard, the active role of the government through trade missions, participation in international exhibitions, and integration between business actors and the Indonesian diaspora abroad is crucial in opening up new distribution channels. In addition, initiatives to develop derivative products such as health drinks and cosmetics based on bird's nests can be a strategic entry point to penetrate markets with modern consumer segments, especially in countries with high healthy lifestyle trends (Purba et al., 2022). Therefore, building an export ecosystem based on product and market diversification is key to the transformation of the Indonesian bird's nest industry in the future.

#### 5.2.4 Supply Chain Efficiency and Value-Added Processing

The efficiency of the supply chain and what obstacles are experienced by exporters during value-added processing were conveyed through interviews conducted with researchers. The results of interviews with exporters are as follows.

| Informant  | Supply Chain Efficiency                                                                                                                                                                                                                               | Value-Added Processing Constraints                                                                                                                                                                                        |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exporter 1 | Yes, we have a bird's nest beverage packaging facility. Value-added products can increase the selling price up to twice compared to raw products. But unfortunately there are still many limitations in terms of BPOM permits and production capacity | Long domestic licensing and lack of facilities such as cold storage and laboratories. If everything has to be done by yourself, the capital will be too large                                                             |
| Exporter 2 | We have started processing bird's nests into drinks in small bottles. These products are sold two to three times more expensive than raw hives. But demand is still low because branding and marketing are not yet strong                             | Capital and business licenses. To get a BPOM permit alone takes time and a lot of money. In addition, our local human resources do not have experience in the production of ready-to-eat food that meets export standards |
| Exporter 3 | We already have an EBN beverage production unit. The selling value can increase 2 to 3 times compared to raw nests. But the production                                                                                                                | Licensing. Distribution permits, BPOM, and halal certification take time and cost a lot of money. Not to mention the limitations of human resources who                                                                   |

|            |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                  |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | volume is still small due to capacity constraints and slow domestic regulations                                                                                                                                                          | master processing and packaging technology                                                                                                                                                                                                                                       |
| Exporter 4 | Yes, we have a processing line for EBN into ready-to-consume drinks. The selling price increased by almost 200%, but production volume and demand were still limited because the product was not widely known abroad                     | The obstacle is in BPOM licensing and the lack of experts in product development. We also have difficulty getting quality and certified supporting materials                                                                                                                     |
| Exporter 5 | We have just started packaging the swallow's nest in semi-finished form, like a ready-to-cook nest. The selling price can be 1.5 times higher than raw nests, and more stable because the market segments are different                  | Lack of knowledge of processing technology, limited equipment, and difficulty in obtaining distribution permits such as from BPOM. This makes us unable to move on to finished products such as supplements or drinks                                                            |
| Exporter 6 | Yes, we have exported products such as EBN extract for drinks and skincare basic ingredients. The selling price can increase 3-4 times compared to raw nests, and the market is wider because it is not limited to traditional consumers | The largest is in the certification of processed products, including BPOM distribution permits, and international standardization processes. In addition, the limitations of extraction and formulation technology are also an obstacle for us to compete in the premium segment |
| Exporter 7 | Not optimal. We only process in the form of dry nests ready for consumption, not yet entered into beverage or cosmetic products. But from our experience, premium packaging can increase the selling price by up to 50%.                 | We lack experts in the field of product formulation and do not have production facilities that meet BPOM standards. In addition, additives such as halal gelatin and food-grade packaging are also not easy to obtain in our city                                                |
| Exporter 8 | We have a ready-to-consume bird's nest drink production unit. This                                                                                                                                                                       | The obstacle is in production capacity and regulation. BPOM distribution                                                                                                                                                                                                         |

|             |                                                                                                                                                                                                                |                                                                                                                                                                                                                                              |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | product sells well domestically and a small part is imported to Singapore. The profit margin can increase up to 3–4 times compared to raw hives                                                                | permits are long in process and require a lot of money. We also have difficulty accessing modern production technology and attractive packaging development for the international market                                                     |
| Exporter 9  | Not much. We only clean and dry manually. We want to get into packaging or processed products, but don't know where to start                                                                                   | Capital and knowledge. We don't have the tools, we don't know the legal standards of processed products, and we don't have the assistance to help make a processing business license                                                         |
| Exporter 10 | Yes, we have a line of ready-to-consume bird's nest drink products and also extract capsules. This product can be sold 3–5 times more expensive than raw nests. We also pack at a premium to enhance the image | The main constraints are R&D and distribution. We need collaboration with research institutions or universities to develop formulas that are in line with global market trends, as well as promotional support to penetrate overseas markets |

Discussions on supply chain efficiency and obstacles in processing value-added swallow's nest (EBN) show that some exporters have succeeded in developing processed products such as health drinks, extract capsules, or ready-to-cook nests that are able to increase the selling value up to 2-5 times compared to raw products. Some exporters have even penetrated the export market with this product, although it is still in limited volume. The supply chain efficiency achieved through local processing provides opportunities for increased margins and price stability as products are no longer entirely dependent on the Chinese market and traditional consumers. However, not all exporters are able to maximize this potential due to limited production technology, limited trained human resources, and limited initial capital to build processing facilities.

On the other hand, almost all exporters highlight major obstacles in the process of legalizing and certifying value-added products, especially to obtain distribution permits from BPOM, halal certification, and other export standards. This process is considered slow, complicated, and expensive, especially for small and medium-sized exporters. In addition, many actors do not have access to equipment that complies with food safety standards or do not have experts in the formulation, packaging, and R&D of processed products. This makes it

difficult for them to upgrade from just a producer of raw materials to a value-added industry player. The problem also includes the availability of additional ingredients such as halal gelatin or food-grade packaging that is often not available in the regions.

Another obstacle lies in the lack of technical and institutional support for innovation and product development, such as collaboration with research institutes or universities. Some exporters who have tried to develop EBN extract or beverage products mention the need for further research and development so that their products are in line with global trends and standards, for example in terms of health benefits, taste, and packaging. Without strong R&D and promotion support, processed products from Indonesia are still difficult to compete with competing countries such as Thailand or Malaysia that have already built EBN-based value-added industries with government support and a more integrated system. The obstacles certainly received a response from the government, namely by the procurement of special programs and supervision from the government.

| Informant | Government Programs                                                                                                                                                                                                                                                                   | Supervision from the Government                                                                                                                                                                                                                                                                       |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Office 1  | There are several fiscal incentive schemes through the Ministry of Finance, including import tax exemption on production equipment and credit interest subsidies for export MSMEs. We are also encouraging the establishment of swallow industrial estates in Kalimantan and Sulawesi | We work closely with the Agricultural Quarantine Agency and the Certification Center to guarantee quality. Each shipment must pass standardized laboratory tests and have a product health certificate from quarantine. This is to maintain Indonesia's reputation as a trusted EBN producing country |
| Office 2  | We are working with local governments and related agencies to establish a swallow industrial estate that has cold storage, laboratories, and standard washing facilities. In addition, we encourage partnerships between large exporters and MSMEs in product processing              | We conduct mandatory laboratory tests for each export lot, including microbiological and chemical residue tests. Products that do not meet the standards will be rejected or re-quarantined. We also conduct periodic audits of registered swallow houses and processing facilities                   |
| Office 3  | There are, especially through collaboration with the Ministry of                                                                                                                                                                                                                      | Supervision is carried out jointly between Quarantine, BPOM, and                                                                                                                                                                                                                                      |

|          |                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                          |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | Industry and the Indonesian Export Financing Institution (LPEI). We are also drafting specific fiscal incentive guidelines for the EBN processing industry so that they can grow and create jobs                                                                                                                                               | trade agencies. We also encourage self-reporting systems and periodic audits to export facilities. National standards are also constantly updated to align with Codex and destination country requirements                                                                                                                               |
| Office 4 | We strive for business actors to get the convenience of KITE (Ease of Import for Export Purposes) facilities, and fiscal incentives for investment in the food processing sector. In addition, there is guidance from the Directorate General of Agro Industry and export financing through LPEI for the construction of processing facilities | We monitor in terms of documents and compliance with export regulations, including the results of quality tests and the origin of raw materials. Technical supervision is carried out by Barantan and BPOM, but we are also active in aligning national standards with the needs of the international market so that they do not overlap |
| Office 5 | We encourage value-added processing certifications such as HACCP and ISO through training and facilitation. Currently, the development of swallow industrial estates is also being discussed across ministries to encourage production and processing clustering                                                                               | We require laboratory testing for nitrite levels, microbial contamination, and verification of the sterilization process. All are done in Barantan accredited laboratories. Supervision is also carried out through periodic audits of processing units and traceability of product origin                                               |

The results of the interviews show that various strategic programs have been rolled out to strengthen national competitiveness. The central government, through technical ministries and financing institutions, provides support in the form of fiscal incentives such as import tax exemption on production equipment, export credit interest subsidies, and Export Purpose Import Facility (KITE) facilities. In addition, the development of swallow industrial estates in Kalimantan and Sulawesi is a concrete step to overcome fragmentation in the supply chain and provide critical infrastructure such as cold storage, laboratories, and standard washing facilities. Partnerships between large exporters and MSMEs are also encouraged so that small actors can access technology, markets, and joint production facilities.

In terms of supervision, the government has shown a commitment to maintaining the quality of EBN export products through cross-institutional cooperation such as Agricultural Quarantine, BPOM, and Certification Centers. All products to be exported must undergo standardized laboratory tests to ensure food safety and product hygiene, including microbiological testing, nitrite content, and sterilization. This supervision is carried out in the final stage of export, and involves periodic audits of swallow houses and processing units. With this approach, Indonesia seeks to maintain its reputation as a country that produces EBN that is safe, hygienic, and meets international standards. However, supervision is not only repressive, but also accompanied by the development and harmonization of national standards. The government encourages the adoption of international certifications such as HACCP and ISO through training and facilitation for business actors. Self-reporting and product origin tracking systems are also strengthened to create supply chain transparency. This is important to answer the demands of the global market, which is increasingly stringent in assessing the origin, safety, and sustainability of food products. The success of these programs will depend heavily on consistency of implementation, cross-sector collaboration, and bureaucratic simplification so that MSME actors can also access high-value export opportunities. According to experts, there are several things that can be done to overcome these obstacles.

| Expert   | Statement                                                                                                                                                                                                                     |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Expert 1 | Refining, extraction, sterile packaging, and logistics and audit digitization technologies can improve quality while expanding the market. Product innovation can also reach new segments such as cosmetics or nutraceuticals |
| Expert 2 | Technology is essential. Innovations in product extraction, preservation, and formulation can create differentiation. For example, EBN is in the form of ready-to-eat drinks, face masks, or herbal capsules.                 |
| Expert 3 | Packaging, protein extraction, and processing technology into cosmetic products or functional foods can increase the selling value of EBN by two to three times                                                               |

Experts agree that technological innovation is a good measure to overcome obstacles in the processing of added value of swallow's nest (EBN). Technologies such as protein extraction, purification, and sterile packaging can improve product quality and extend shelf life, while meeting international standards. In addition, the digitization of logistics and audit systems is considered to be able to create efficiency in the distribution and tracking of product origins, which is very important to penetrate the premium market. With this approach, EBN Indonesia is not only competitive in terms of price, but also in terms of product quality and safety. Product diversification through innovation is also considered to have great potential to expand market

segments. Experts emphasize the importance of developing new processed forms such as ready-to-eat drinks, face masks, herbal capsules, and other nutraceutical products. The transformation of EBN from raw products to raw materials for the health and beauty industry can increase the selling value by two to three times. This strategy can add to its attractiveness in the international market, as well as open up export opportunities to countries with strict regulations that demand ready-to-use processed products rather than raw materials.

Optimizing the supply chain is one of the main keys to increasing the competitiveness of Indonesian swallow's nest exports in the international market. Currently, the supply chain structure consisting of breeders, collectors, processors, and exporters is still fragmented and not fully integrated. This condition causes inefficiencies, such as duplication of distribution costs, late delivery, and vulnerability to quality degradation due to non-standard handling (Rahmawati et al., 2022).

In addition to the problem of connectivity between actors in the supply chain, the lack of supporting infrastructure such as certified washing centers, cold chain logistics systems, and processing facilities that meet export standards also adds to the challenges. In many production center areas, the collection and processing processes are still carried out manually and traditionally, which has an impact on the lack of guaranteed hygiene and product traceability (Purba et al., 2022). In the context of exports to China and other countries with strict standards, this deficiency can result in product rejection at the destination port. The development of integrated facilities in production areas that include sterilization centers, nitrite content testing laboratories, and refrigerated warehouses is a strategic step to reduce logistics costs while maintaining product quality to the point of export (Saputra et al., 2022). This value chain-based regional model can also support the acceleration of direct exports from the region, without the need to transit through large ports such as Jakarta or Surabaya.

On the other hand, increasing added value is an important step to expand market segments and increase domestic income. Derivative products such as health drinks, nutritional supplements, and cosmetics based on swallow's nests show great potential to penetrate modern markets outside East Asia (Sulistiyowati et al., 2024). Increasing product diversification not only boosts selling prices but also expands consumer targets, from traditional users to the younger generation, urban, and healthy lifestyle lovers. However, the development of value-added products still faces obstacles in terms of technology, R&D, and financing. For this reason, government support in the form of innovation incentives, product patent facilities, and research partnerships between business actors and R&D institutions needs to be increased. A value-added strategy will drive the transformation of Indonesia's role

from being merely an exporter of raw materials to a market leader in global processed bird's nest products.

### 5.2.5 Strategies to Strengthen Indonesia's EBN Sector

According to the bird's nest exporter himself, there are several strategies that can be done to strengthen the EBN sector in Indonesia. Here are the strategies that can be done according to exporters.

| Informant  | Strategy                                                                                                                                                                                                                                                                                         |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exporter 1 | The government must provide a special industrial area for EBN with complete facilities, in my opinion, such as washing, sterilization, storage, and laboratories. In addition, active trade promotion to new countries is urgently needed so that we are not too dependent on the Chinese market |
| Exporter 2 | In my opinion, the government needs to create an integrated export service center in swallow-producing areas, not just in Jakarta. In addition, international promotion and human resource training for the EBN processing industry must be intensified                                          |
| Exporter 3 | An EBN industrial estate with complete facilities and one-stop services is needed for all export needs. Also, trade diplomacy needs to be strengthened so that we are not dependent on one country                                                                                               |
| Exporter 4 | The government needs to build EBN processing areas in production center areas, including laboratories and quarantines. In addition, national branding programs and digital-based export support are also needed so that Indonesian products are known more widely                                |
| Exporter 5 | What we need is an EBN industrial processing area near the swallow production center, and fiscal incentives for business actors who want to enter value-added products. Without it, we will continue to be an exporter of raw materials only                                                     |
| Exporter 6 | We need a special industrial estate for EBN with complete facilities, from quarantine, processing, to packaging. The government should also facilitate special bilateral trade agreements with potential countries outside China                                                                 |
| Exporter 7 | We urgently need incentives to build mini processing plants in the region, including technical assistance and financing. In addition, trade promotion that focuses on Indonesian branding is also important so that foreign buyers have more confidence in our products                          |

|             |                                                                                                                                                                                                                                                           |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exporter 8  | We need fiscal incentives for technology investment, as well as ease of export for processed products. The government also needs to strengthen national branding so that Indonesian products are recognized for their quality in the international market |
| Exporter 9  | Technical guidance and incentives for small exporters. The government must also create a one-stop service center that is easily accessible to swallow business actors in the region                                                                       |
| Exporter 10 | R&D support and logistics integration. The government must build a more efficient export ecosystem, including incentives for product innovation, as well as accelerate the establishment of standardized swallow industrial estates                       |

Swallow's nest exporters explained the need to strengthen industrial infrastructure and export promotion as the main strategy to strengthen the EBN sector in Indonesia. The majority of them proposed the development of an integrated EBN special industrial estate, including washing, sterilization, standardized storage, laboratories, and quarantine and packaging services. This area is expected to be placed close to the swallow production center to reduce logistics costs and improve supply chain efficiency. In addition, a one-stop export service center is also considered crucial, especially if it is provided directly in the producing areas, not just centralized in Jakarta. This approach is considered to speed up the export process and help business actors in the region to be more competitive. Strengthening trade promotion and diplomacy is also an important highlight. The exporters emphasized the importance of expanding the market outside of China through active trade promotion, the establishment of special bilateral agreements with EBN, and the development of a national branding strategy that showcases EBN Indonesia as a high-quality product. Support for *R&D*, fiscal incentives for investment in technology and value-added products, and technical training for local human resources are also seen as important to drive the transformation from raw material exporters to globally competitive exporters of processed products. These strategies are not only to increase the selling value, but also to create a more self-sufficient and sustainable EBN export ecosystem.

The officials also conveyed the strategies that have been carried out so far to strengthen the EBN sector.

| Informant | Strategy                                                                                                                                          |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Office 1  | We regularly hold export training, global market trend seminars, and digital-based export assistance. In addition, we collaborate with university |

|          |                                                                                                                                                                                                                                                                                                                              |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | partners and research institutions to provide technical training on product diversification and new market entry strategies                                                                                                                                                                                                  |
| Office 2 | We organize technical training on swallow house sanitation, hygienic packaging, and compliance with destination country standards. This training is usually carried out in collaboration with associations and colleges. It is hoped that exporters can be better prepared to face the changing demands of the global market |
| Office 3 | We have an Export Coaching Program (ECP) and an export clinic aimed at new and medium-sized exporters. The content includes export management, international negotiation techniques, and the use of trade agreements. In the future, we will encourage training to be more specific for EBN commodities                      |
| Office 4 | The ministry organizes export training, business matching, and international branding consulting. For EBN, we also collaborate with ITPC abroad to connect exporters with buyers who are looking for value-added products                                                                                                    |
| Office 5 | We regularly provide sanitation management training, HACCP preparation, as well as technical guidance on packaging and preservation. The training program also works closely with universities and overseas partners to ensure the standards used are relevant to global market demands                                      |

Government officials have implemented various training and technical assistance strategies to strengthen Indonesia's swallow's nest (EBN) export sector. The training provided covers technical aspects such as swallow house sanitation, hygienic packaging, HACCP preparation, and compliance with export destination country standards. These programs are generally carried out in collaboration with associations, universities, and international institutions, to ensure that training materials are in line with global market standards. The goal is for EBN business actors, especially MSMEs and start-up exporters, to have adequate technical capacity to produce processed products that are safe, high-value, and in accordance with international consumer demand.

In addition, the government also emphasizes on strengthening export capacity as a whole. Programs such as the Export Coaching Program (ECP) and export clinics focus on managerial and marketing aspects, including international negotiation techniques, the use of trade agreements, branding strategies, and business matching with foreign buyers. Several ministries have even collaborated with the Indonesian Trade Promotion Center (ITPC) abroad to open market access and bring together Indonesian EBN exporters with potential buyers. Experts also gave their opinions on the strategy that should be carried out.

| Expert   | Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Expert 1 | Cross-sectoral integrative policies, incentives for processed industries, trade promotion in destination countries, and strengthening the capacity of local human resources. Without structural intervention, our EBN industry will remain in a passive position in the global chain. Build an integrated digital export system, harmonize domestic standards with destination markets, and encourage product downstreaming. The government must also dare to take on the role of a market facilitator and liaison between industry players |
| Expert 2 | It needs a comprehensive strategy such as the development of swallow industrial estates, the integration of testing and export services, and stronger bilateral trade cooperation. It is also important to build a national branding system. It can encourage downstreaming, form a special EBN coordination agency, and provide financing schemes and training for SMEs. The government must also be active in technical diplomacy to open up access to new markets                                                                        |
| Expert 3 | Harmonization of regulations, development of EBN industrial estates, and trade promotion based on national brands. In addition, incentives for investment in R&D and processing technologies should be increased. We can form a cross-ministerial work unit for EBN, facilitate international certification for small actors, and launch the EBN Indonesia campaign in the global market with the support of the diaspora and digital marketing                                                                                             |

The experts explained the importance of a comprehensive and integrated national strategy to strengthen the competitiveness of Indonesia's swallow's nest industry in the global market. They proposed the establishment of an EBN industrial estate with complete facilities ranging from processing, testing, to export to encourage downstream and supply chain efficiency. This strategy must be supported by an integrated digital export system, integration of certification and licensing services, and harmonization of domestic standards with regulations of export destination countries. The experts also emphasized the need for the government's active role as a facilitator and coordinator across sectors, including by establishing a special EBN institution to ensure that policies do not overlap and run effectively. In addition, investment in human resources, technology, and national branding is also considered important. The government needs to provide fiscal incentives to encourage business actors, especially SMEs, to switch from exporting raw materials to value-added products through research and development (R&D). Technical diplomacy and bilateral trade cooperation should also be strengthened to open up new market access.

To strengthen the national bird's nest industry as a whole, a collaborative and holistic strategic approach is needed. The central government has an important role in creating regulations that support and accelerate the process of harmonizing export standards. The lack of synchronization between various ministries and between the central and regional governments must be immediately addressed to create an efficient and pro-growth licensing and quality control system (Purba et al., 2022). In addition, Indonesia needs to expand its market reach through bilateral and multilateral trade cooperation specifically for high-value commodities such as bird's nests. Countries with high economic growth and healthy lifestyle trends such as the UAE, Japan, South Korea, and the US should be prioritized as new markets through active trade diplomacy, product exhibitions, and national branding promotions (Sulistiyowati et al., 2024). From the upstream side, increasing human resource capacity is an important foundation. Educational programs for farmers regarding hygiene standards, environmentally friendly cultivation systems, and export-oriented business management will improve production quality sustainably (Rahmawati et al., 2022). Empowerment through cooperatives or associations can also strengthen the bargaining position of farmers in the market.

Furthermore, digitalization of technology-based market information systems can be a lever for efficiency and transparency in distribution and pricing. Digital platforms that contain market demand data, reference prices, and direct distribution channels to exporters will accelerate business processes and increase fairness in the distribution of profits for small business actors (Purba, Sudaryanto, & Rafani, 2022). The transformation from raw material exporters to high-value processed product producers is a long-term strategy that must be pursued seriously. In a scheme like this, Indonesia not only sells "products", but also the "values and stories" that accompany them including the ecological, ethical, and functional aspects of the bird's nest. This approach will strengthen Indonesia's competitiveness in the global market and create a resilient, inclusive, and sustainable swallow industry ecosystem

## **5.3 DISCUSSION**

### **5.3.1 Challenges In Exporting Swallow Nests**

#### **5.3.1.1 Strict Regulations of Destination Countries**

Strict regulations from destination countries, especially China, are a significant challenge in the export of swallow's nests from Indonesia. Since 2010, China has stopped direct exports from Indonesia due to increasing concerns about bird flu (H5N1) and high levels of nitrite in Indonesian swallow's nest products which are considered to exceed the safe

threshold for consumption (Saputra et al., 2022). This ban not only lowered the selling price of swallow's nests in the global market but also forced Indonesian exporters to divert distribution channels through third countries such as Singapore and China. According to data from the Indonesian Ministry of Trade, the export value of swallow's nests dropped from USD 226 million in 2010 to below USD 150 million in 2011, directly after the ban by China was enacted (Ministry of Trade, 2012).

This practice increases the risk of non-compliance with quality and safety standards, and reduces potential profits for domestic breeders and exporters (Saputra et al., 2022). After going through a five- year negotiation process, in 2015 Indonesia finally regained a direct export permit to China, with various strict technical requirements. Among them, companies must become Registered Bird's Nest Exporters (ET-SBW), meet HACCP standards, and obtain certification from the General Administration of Customs of China (GACC), and ensure that the nitrite content in the product does not exceed 30 ppm. In addition to the technical requirements from China, the Indonesian government also stipulates the obligation to have a Veterinary Control Number (VCN) certification for all swallow business units to ensure the safety and quality of products before export (Purba et al., 2022).

This policy is an effort by the government to maintain the credibility and competitiveness of Indonesian swallow's nest products in the international market, while at the same time suppressing illegal export practices that still occur. However, for small and medium business actors, these complicated regulations are actually a major obstacle because they often do not have access to adequate information, technology, and guidance. Therefore, policy synergy is needed between the central and regional governments and business actors to improve compliance with international standards and expand market access. This is important considering that China is the largest consumer of swallow's nest in the world, absorbing more than 90% of global production (Purba et al., 2022). If these regulatory barriers can be overcome systematically, Indonesia has a great opportunity to maintain and even strengthen its position as a major exporter in the global market.

### **5.3.1.2 Infrastructure and Supply Chain**

One of the fundamental challenges in exporting Indonesian swallow nests is the suboptimal infrastructure and supply chain system, especially in supporting the fulfillment of international quality standards and logistics efficiency. Limited infrastructure such as washing centers, cold storage, and packaging facilities that meet international export standards, especially HACCP and GACC, are still major obstacles in many swallow producing areas in Indonesia (Purba et al., 2022). In addition, unequal access to

transportation and minimal integration between production locations (swallow houses) and processing facilities also slow down the distribution process, which ultimately affects the quality and competitiveness of products in the export market. From the supply chain side, the swallow nest logistics system in Indonesia is still partial and not integrated, starting from breeders, collectors, to exporters.

Based on a report by the Ministry of Agriculture in 2021, only 20 out of more than 150 swallow nest producing districts in Indonesia had certified processing facilities that met HACCP and GACC standards (MoA, 2021). This causes distribution costs to be high, and increases the opportunity for a decrease in quality due to handling that does not comply with export standards (Saputra et al., 2022). The lack of integrated logistics centers equipped with quarantine facilities, quality testing, and processing also adds to the complexity of this distribution chain. On the other hand, supporting infrastructure such as export ports that are not yet friendly to high-value agricultural products also slow down the export process to destination countries such as China which has strict regulations. For example, in North Sumatra one of the top-producing provinces exporters reported average delays of 5–7 days due to lack of regional testing and cold storage units (Purba et al., 2022).

The government's efforts to encourage downstreaming and strengthening the supply chain have been carried out, one of which is through the GraTiEks (Three Times Export Movement) program, which targets increasing exports of superior agricultural commodities, including swallow's nests. This program emphasizes the importance of increasing the capacity of logistics and processing infrastructure in the regions (Purba et al., 2022). However, its implementation still faces challenges in cross-sector coordination, including between the Ministry of Agriculture, the Ministry of Trade, and quarantine authorities. From a competitiveness perspective, a country like Singapore that has an integrated and efficient supply chain is actually able to become a major re-exporter of swallow's nest products to China, even though most of the products come from Indonesia. This shows that improving the domestic supply chain system is urgent so that Indonesia becomes not only a major producer, but also a direct exporter with maximum added value.

### **5.3.1.3 International Competition**

International competition in swallow's nest exports is increasing along with high global demand, especially from China, which is the main market. Indonesia does play a dominant role with a market share of 70-80% of total world exports, but this position is starting to be challenged by competing countries such as Malaysia, Thailand, and Vietnam, which continue to improve the quality of their production and export certification systems (Purba et. al, 2022).

However, Vietnam increased its export volume by 25% between 2018 and 2022 after signing direct export protocols with China (Vietnam Trade Statistics, 2023). Thailand, for example, has experienced increased competitiveness through government support for research and development of swallow products, as well as proactive trade policies to directly penetrate the Chinese market (Saputra et. al., 2022).

On the other hand, Singapore is also a significant indirect competitor because it acts as a re-export country with a much more efficient logistics and quality control system. This condition causes swallow's nest products from Indonesia to be more trusted by Chinese buyers if they are shipped from Singapore (Purba et al., 2022). This reflects that although Indonesia is superior in terms of production, this advantage has not been fully utilized to directly dominate the global value chain. In addition, competing countries have also gone further by diversifying products, such as processing bird's nests into health drinks and cosmetic ingredients. Meanwhile, Indonesia's exports are still dominated by raw or semi-finished products, which of course have lower added value in the international market (Rahmawati et. al., 2022). According to BPS data (2023), more than 85% of Indonesia's bird nest exports are in the form of raw nests, compared to Thailand where more than 40% are exported as ready-to-eat processed products. Therefore, to maintain and strengthen its position in the global market, Indonesia needs to accelerate the transformation of the bird's nest industry from a quantity orientation to quality, product innovation, and strengthening an integrated export system that is internationally competitive.

#### **5.3.1.4 Lack of Market Diversification**

One of the main challenges in Indonesia's swallow nest exports is the high dependence on one destination country, namely China. Until now, more than 90% of Indonesia's swallow nest exports have been destined for the Chinese market, making Indonesia very vulnerable to fluctuations in regulations and demand from that country (Purba et. al., 2022). In 2022, 93.4% of total swallow nest exports worth around USD 355 million were shipped to China, while exports to Japan, UAE, and the US remained below 2% each (BPS, 2023). This dependence proved risky when in 2010, China imposed an import ban due to health issues, which caused many exporters to suffer losses and switch to selling to the domestic market or through third countries such as China (Saputra et. al., 2022).

In fact, other potential markets such as Japan, the United States, the United Arab Emirates, and Middle Eastern countries are starting to show demand for swallow nests, especially in the form of processed products with added value. Unfortunately, efforts to penetrate this alternative market are still limited, because most exporters and local

governments do not yet have a segmented marketing strategy based on international trade data (Sulistiyowati et al., 2024). In addition, the weak branding of Indonesian bird's nest products outside China and minimal participation in international trade exhibitions have also narrowed the market reach.

Based on data from the Central Statistics Agency, the trend of bird's nest exports to destination countries other than China has been stagnant in recent years, indicating a lack of real diversification in export direction (Central Statistics Agency, 2021). This stagnation is evident in the fact that export volumes to non-China destinations remained flat at around 1,500–2,000 kg annually from 2018 to 2022 (BPS, 2023). If there are no strategic steps to develop new markets, Indonesia will continue to face pressure if the Chinese market implements protectionist policies or technical trade barriers. Therefore, there needs to be a national policy that encourages market diversification through active promotion, facilitation of exports to potential countries, and strengthening bilateral and multilateral trade diplomacy.

### ***5.3.2 Opportunities In The Bird's Nest Export Industry***

#### **5.3.2.1 Increasing Global Demand**

The export opportunities for swallow's nest from Indonesia are increasingly wide open along with the increasing global demand for this product. High demand comes mainly from China as the main consumer, where swallow's nest is considered a luxury product with high health value. Data shows that Indonesian swallow's nest exports to China in 2022 reached 290 tons with a value of USD 387 million, reflecting the enormous economic potential of this commodity (Sulistiyowati et al., 2024). In addition to China, countries such as China, the United States, and several Middle Eastern regions are also starting to show increasing interest in this product, especially in the form of food such as health drinks and swallow's nest-based cosmetics. The global community's tendency towards a healthy lifestyle has also driven this growth in demand. The content of swallow's nest which is rich in glycoproteins, amino acids, and minerals is believed to be able to increase immunity and help cell regeneration, so this product is becoming increasingly popular among the world's middle and upper classes (Effendy, 2015). In addition, its high economic value has also increasingly triggered many local farmers who are interested in cultivating swiftlets and focusing on exports. This has great potential if supported by an effective logistics system, quality certification, and promotion.

The trend of increasing export value from year to year shows that the global market is still growing. In the period 2016–2020, the volume of Indonesian swiftlet nest exports tended to increase, with China remaining the dominant market (Lokadata, 2020). If this potential is

optimized, Indonesia will not only maintain its position as the world's largest producer, but can also strengthen added value through product diversification and expansion of export markets. To support this potential, evidence-based data is needed to validate the actual scale of opportunities and ensure effective strategy formulation (e.g., trends in consumption, export margins, and product preferences).

### **5.3.2.2 Government Policy Support**

The Indonesian government plays an important role in driving the progress of the bird's nest industry, especially through policies that support export growth and increase product competitiveness in the global market. A number of policies have been issued to respond to various export barriers, both technical, administrative, and market. One concrete form of this support is the issuance of regulations on the Veterinary Control Number (VCN), which aims to ensure food safety and the quality of bird's nest export products. VCN is an important requirement in the export process to countries such as China that have strict standards for the safety of imported products (Purba et. al., 2022). In addition, the government through the Ministry of Agriculture launched the national program Gerakan Tiga Kali Ekspor (GraTiEks) which includes superior commodities such as bird's nests. This program aims to increase the volume and value of exports through various strategies, including farmer development, quality certification facilitation, and international market promotion (Purba et al., 2022). GraTiEks is an important part of efforts to increase the contribution of the livestock subsector to national exports and boost the country's foreign exchange. However, the implementation of this program still faces challenges, especially in terms of cross-sector coordination, budget constraints, and lack of supporting infrastructure in producer areas.

In the context of international trade, the Ministry of Trade also plays an active role by establishing bilateral and multilateral agreements, as well as facilitating technical negotiations on the export of bird's nests to destination countries. An example is the export protocol agreement between Indonesia and China which regulates technical provisions such as maximum nitrite levels and quarantine procedures. This protocol reopens the opportunity for direct exports to China after the ban in 2010, while also providing legal guarantees for exporters who comply with these export standards (Saputra et. al., 2022). The role of technical diplomacy is crucial to maintaining export continuity and preventing dependence on unofficial channels through third countries.

On the other hand, support policies in the form of financing, tax incentives, and easy access to export permits are still considered uneven and have not fully reached micro and

small business actors. In fact, most bird's nest producers in Indonesia are small-scale and spread across remote areas. Lack of access to formal financing, HACCP certification, and technical training are real obstacles that hinder their potential to directly penetrate the export market (Sulistiyowati et al., 2024). Therefore, there needs to be an improvement in policy design that is more inclusive and based on real field needs. Not only that, the research and innovation sector also requires more attention. Government support for the development of processed products based on bird's nests such as health drinks, supplements, and cosmetics is still very limited. In fact, these value-added products have great market potential and can increase Indonesia's competitiveness not only as an exporter of raw materials, but also as a country producing finished goods with high economic value (Rahmawati et. al., 2022). Therefore, synergy between research institutions, industry players, and the government needs to be improved to encourage the downstreaming of the bird's nest industry nationally.

Overall, government policies have shown the right direction in supporting the bird's nest industry. However, the effectiveness of these policies still depends on the quality of implementation at the regional level, ease of access for small business actors, and integration between ministries and related institutions. If these aspects are strengthened, government policies can become a strategic foundation that supports the sustainable growth of Indonesia's bird's nest export industry.

#### **5.3.2.3 Product and Technology Innovation**

Several exporters have begun to develop derivative products such as herbal drinks, health candy, and beauty masks made from swallow's nest. This innovation opens up opportunities for non-traditional market penetration and provides higher added value than selling raw products. This initiative also contributes to strengthening Indonesia's brand as a producer of high-value products (Purba et al., 2022). Product innovation efforts are an important strategy in facing global competition and meeting the preferences of the modern market, especially young consumers and the premium market who tend to look for practical, hygienic, and ready-to-consume products. SBW products that have been processed into functional foods such as instant soup, concentrated extracts, and health supplements have begun to be developed by export companies in Indonesia (Saputra et al., 2022).

Rahmawati, Purnomo, and Marwanti (2022) emphasize that developing value-added products is an important solution to expand Indonesia's market share in major export destination countries, especially China. Processed products provide flexibility in distribution, increase profit margins, and strengthen competitiveness through product differentiation that suits market needs. In terms of technology, innovation does not only cover the final product,

but also includes the cultivation and processing process. In areas such as Pulang Pisau, Central Kalimantan, swiftlet farmers face significant seasonal challenges. To that end, they have adopted technologies such as automatic temperature and humidity control systems, as well as more modern harvesting and preservation technologies to maintain production continuity throughout the year (Sulistiyowati et al., 2024).

Processing technology has also made significant progress, such as the use of sterilization techniques through heating (heating process), hygienic drying, and nitrite purification technology to ensure a maximum content of 30 ppm according to Chinese standards. This is an absolute requirement for products to be accepted in the Chinese market which is very strict in terms of quality and food safety standards (Saputra et al., 2022). To support this, the Indonesian government through the Ministry of Agriculture and the Ministry of Trade is encouraging the adoption of downstream technology and product diversification. Programs such as post-harvest technology training, HACCP certification, and value-added export facilitation have been initiated to encourage the growth of a more advanced and sustainable bird's nest industry (Purba et. al., 2022).

#### **5.3.2.4 Digital Technology Integration**

In the era of industry 4.0, the use of digital technology has become an important need to increase the efficiency and competitiveness of the swallow's nest industry. Digital technology has begun to be adopted by swallow entrepreneurs, both in terms of production, cultivation management, and marketing. The use of automatic sensors to regulate temperature and humidity in swallow houses has been proven to help maintain ideal conditions that support the growth and comfort of swallows, especially in facing seasonal challenges such as the dry season (Sulistiyowati et al., 2024). In addition, IoT (Internet of Things)-based monitoring systems have begun to be used to control the cultivation process in real time. Sensors and cameras connected to mobile phone applications allow farmers to monitor swallow behavior, air quality, and nest production activities directly from a distance. This not only increases labor efficiency but also accelerates the detection of disturbances such as pest attacks, theft, or extreme weather changes that impact production (Purba et al., 2022).

In terms of processing, several exporters have used digital technology to support the food quality and safety documentation process. HACCP-based technology, smart logistics systems, and digital tracking are used to ensure that exported products meet international standards such as the requirements of GACC (General Administration of Customs of the People's Republic of China) and ET-SBW (Registered Exporter of Swiftlet Nest) (Saputra et al., 2022). On the marketing side, digitalization also plays an important role. E-commerce platforms and social

media have been utilized to expand market reach, including introducing swiftlet derivative products to global consumers who are not reached by conventional distribution channels. This strategy is in line with the spirit of business actors in targeting non-traditional markets that have great potential for value-added products (Purba et al., 2022).

In addition, the integration of digital information systems with export databases allows policy makers and business actors to conduct market analysis more accurately and quickly. The use of big data and market analytics, as encouraged by government policies in strengthening exports through the Gratiexs (Three Times Export Movement) program, provides opportunities for more targeted and adaptive decision-making to market dynamics (Purba et al., 2022). Thus, the integration of digital technology in the swallow's nest sector not only strengthens the production and processing aspects, but also expands market reach and accelerates adaptation to international regulations. This makes digitalization one of the important foundations in driving the transformation of the Indonesian swallow industry towards a highly competitive global scale.

## **CHAPTER VI**

### **CONCLUSION**

This study aims to explore the challenges and opportunities in bird's nest exports from the perspective of exporters in Indonesia. Using a qualitative case study approach, data were collected through in-depth interviews with bird's nest exporters from various regions in Indonesia. This chapter presents the main findings of the study and discussions that enrich the understanding of the dynamics of Indonesian bird's nest exports

#### ***6.1 CONCLUSION***

This study discusses various important aspects related to Indonesia's edible bird's nest (EBN) exports, ranging from economic and regulatory challenges, the influence of trade policies, to strategies for increasing industrial competitiveness. Based on the results of the analysis of six main references, the following conclusions can be drawn:

1. Indonesian edible bird's nest exporters face complex economic and regulatory challenges. The strict export requirements of destination countries, especially China, such as ET-SBW certification, maximum nitrite levels, and the H5N1 sterilization process have increased the burden of costs and time for business actors. Domestically, unintegrated licensing bureaucracy, minimal quarantine and processing facilities, and the absence of fiscal incentives have hampered distribution efficiency and reduced the competitiveness of Indonesian products
2. Trade policies and the cost of complying with export regulations have a direct impact on Indonesia's competitiveness in the global market. High costs for certification, laboratory testing, and logistics put Indonesia in a less competitive position than competing countries such as Thailand and Malaysia, which have already adopted digital export systems and integrated areas. Fragmentation of export governance has also encouraged small exporters to use third parties such as Singapore to reach international markets
3. Market opportunities outside China show a positive trend. Countries such as the United States, the United Arab Emirates, Japan, and South Korea are increasingly open to the consumption of processed products based on bird's nest, especially those packaged in functional and cosmetic forms. However, Indonesia's penetration into this alternative market is still low due to weak trade promotion, the absence of strong nation branding, and the lack of specific bilateral cooperation on EBN commodities.

4. Supply chain efficiency and the development of value-added products are crucial factors in improving export performance. The unintegrated distribution structure causes wasteful costs and the risk of quality degradation. The construction of washing center facilities, cold storage, laboratories, and swallow's nest industrial areas in production center areas can reduce logistics costs and accelerate exports. In addition, product diversification such as supplements, health drinks, and cosmetics can expand market segments and significantly increase export value.
5. The strategy to strengthen the national EBN industry requires collaboration between the government, business actors, and academics. The government needs to accelerate regulatory harmonization, open access to new markets through trade diplomacy, and provide fiscal incentives and technological support. On the other hand, business actors need to increase human resource capacity, adopt technological innovation, and build a digital-based market information system to strengthen the value chain of the Indonesian swallow industry.

The transformation of the Indonesian swallow's nest industry from an exporter of raw materials to a producer of high-value processed products is a strategic step in facing the dynamics of the global market. Increasing efficiency, product innovation, and market diversification must be carried out simultaneously to strengthen Indonesia's position as a major player in the world's swallow's nest industry.

## **6.2 IMPLICATION**

This study has significant implications for the development of the Indonesian bird's nest export industry. These implications apply not only to entrepreneurs, but also to the government and other related institutions involved in regulating and supervising this sector.

1. Increasing National Competitiveness

Challenges faced by Indonesian exporters, such as high certification and laboratory testing costs, indicate that the government needs to adopt policies that can reduce these costs. If government policies can facilitate administrative processes and introduce fiscal incentives, Indonesia's competitiveness in the global market will increase.

2. The Importance of Multistakeholder Collaboration

Cooperation between the government, business actors, and academics is key to advancing this industry. In this context, government policies that support research and development, as well as initiatives to open new markets, will greatly influence Indonesia's competitiveness.

3. New Market Opportunities

The potential for alternative markets outside China must be utilized more optimally. Countries such as the United States, the United Arab Emirates, Japan, and South Korea are opening up new opportunities for processed products based on bird's nests, but Indonesia's penetration in this market is still limited.

4. Infrastructure Development and Product Diversification

To improve export performance, it is important for Indonesia to improve supply chain efficiency and develop value-added products. Facilities such as washing centers, cold storage, and laboratories will help reduce logistics costs and improve product quality.

### **6.3 SUGGESTIONS**

Based on the findings in this study, several strategic steps can be taken to improve the competitiveness and performance of Indonesian bird's nest exports, including:

1. Regulatory Harmonization and Simplification of Export Processes

The government must accelerate the harmonization of regulations related to bird's nest exports, especially those related to certification and laboratory testing. Reducing costs associated with this process can improve Indonesia's competitiveness compared to other competing countries.

2. Supporting Infrastructure Development

Improving infrastructure, such as building bird's nest processing centers, laboratories, and more integrated distribution systems, will help reduce cost waste and accelerate product distribution to international markets.

3. Product Diversification Development and Global Marketing

Indonesia needs to focus on product diversification, such as health supplements, health drinks, and cosmetics based on bird's nest. In addition, more intensive trade promotion and building a strong national brand will help Indonesia reach a wider global market.

4. Enhancing Human Resource and Technology Capacity

Entrepreneurs must invest in increasing human resource capacity and adopting innovative technologies that can support production and processing efficiency. With a better digital-based market information system, the industry can improve its overall competitiveness.

5. Government Role in Trade Diplomacy

The government must strengthen trade diplomacy to open new market access and enhance bilateral cooperation related to the swallow's nest commodity. In addition, fiscal incentives and technological support need to be provided to accelerate the modernization of this industry.

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