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Article

Growth Factors of China's Fresh-Cut Flower Exports to Japan

Runhan He

Tan Kah Kee College, Xiamen University, Xiamen 363105, China; hrunhan@163.com

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Abstract: In the context of globalization, international trade has become an important driving force for the economic development of all countries. As the world's largest flower producer and exporter, China's export of fresh-cut flowers to Japan is also increasing. However, in fierce competition, it is important to understand and improve the growth factors of China's fresh-cut flower exports to Japan. Using the constant market share (CMS) model, the performance of China's fresh-cut flowers in the Japanese market was analyzed. The results showed that the market share, product competitiveness, and product structure of China's fresh-cut flowers in Japan played a decisive role in export growth. China needs to improve the quality of fresh-cut flowers. , enhancing its market competitiveness to maintain and expand its dominant position and optimize its existing export market and product structure in the Japanese market. At the same time, brand image building and market promotion are also essential. In addition, improving relevant trade policies and upgrading the quality of the service system are also important in promoting fresh-cut flower exports. Through the implementation of these strategies, China can consolidate and expand its position in the Japanese and global market.

Keywords: CMS modelling, Fresh-cut flowers, Causes of export fluctuations

1. Introduction

With globalization, international trade has become more frequent than before. The trade of flowers has been also important and has potential. Fresh-cut flowers are popular because of their unique aesthetics and timeliness. China and Japan have had close relations in flower trade. In recent years, with the development of China's flower industry, China's fresh-cut flower exports to Japan have increased. China dominates the Japanese market with its rich variety of flowers, high-quality products, and moderate prices. As part of Chinese culture, fresh-cut flowers also offer oriental aesthetics to Japanese consumers.

At present, China's fresh-cut flower exports to Japan are based on a stable supply chain and market channels. A variety of flower varieties such as roses, lilies, and chrysanthemums are cultivated and shipped to florists and consumers in Japan. In this process, China's flower companies provide high-quality products with efficient service and professional operation capabilities. However, China's fresh-cut flower exports to Japan face challenges such as intensified market competition, diversification of consumer demand, and trade friction. In order to adapt to market changes, Chinese flower exporters need to continue to innovate and improve product quality and service levels to meet the diverse needs of the Japanese market.

This study aims to explore the current situation of China's fresh-cut flower exports to Japan and analyze the export scale, structure, main varieties, and challenges and opportunities. Through detailed data analysis and market research, valuable information and business strategies can be provided for Chinese flower exporters to sustain the sustainable development of China's flower industry. At the same time, a reference for exchanges and cooperation between China and Japan in the flower industry can be provided.

In this study, the constant market share (CMS) model was used to analyze the current situation of China's fresh-cut flower exports to Japan and reveal the mechanism of export growth. As an effective analytical tool, the CMS model accurately decomposes and quantifies the multiple factors of export growth, including the impact of market demand growth, commodity structure effect, and market competition effect. Using this model, the applicability of international trade-related theories in flower export was verified. More importantly, the CMS model helped understand the changes in the flower export market and provided new perspectives and ideas for subsequent academic research for the improvement of the international trade theory. Based on the results of this study, companies can identify advantages and challenges to optimize the product structure and adjust the market strategy. This enhances the competitiveness of companies by reducing business risks. At the same time, the analysis results of the CMS model also provide a reference for the government to formulate accurate and effective policies for flower export and promote the transformation, upgrading, and sustainable development of the industry. the results also help develop the flower export industry.

In this study, China's export data of fresh-cut flowers to Japan were collected. Indicators such as export volume, export value, and export varieties were determined to assess the performance of the flower industry in the Japanese market. The CMS model was used to determine the multi-dimensional factors of export growth to investigate structural and competitiveness effects through first-order and second-order decompositions. The structural effect was divided into the growth and product structure effects, and the competitiveness effect was divided into the competitiveness and product competitiveness effects. Those effects were explored to study market demand, and commodity structure, and identify key factors that promote or restrict the export of Chinese fresh-cut flowers. Multiple factors such as consumer preferences, import policies, and the production capacity of China's flower industry were considered in the analysis. The results were used to suggest policies, market strategies, and guidance for Chinese flower export companies and provide a reference for relevant government departments in formulating export policies.

2. Literature Review

2.1. Fresh-cut Flowers

Fresh-cut flowers, also known as cut flowers, refer to the stems, leaves, flowers, and fruits cut directly from the growing plant body to make floral decorations using their unique ornamental values including flower baskets, bouquets, garlands, vase flower arrangements, and chest ornaments. Among them, gladiolus, yueji, chrysanthemum, carnation, gerbera, and anthurium are the most popular fresh-cut flowers (Table 1).

Table 1. Classification of fresh-cut flower products.

HS code	The title of the product
06031100	Fresh bouquets or decorative rose arrangers and buds
06031200	Fresh bouquets or carnations for decoration and flower buds
06031300	Fresh bouquets or orchid flower arrangements and buds for decoration
06031400	Fresh bouquets or decorative chrysanthemum flower arrangements and flower buds
06031500	Fresh bouquets or decorative lily flower arrangements and buds
06031900	Other fresh bouquets or decorative flower arrangements and buds

Source: Harmonized Commodity Description and Coding System (HS).

2.2. Market Demand Effect

The market demand effect refers to the impact of market demand on economic activities. Specifically, market demand refers to the quantity that consumers are willing and able to buy certain goods or services at a certain time and price. When market demand changes, it impacts the supply and demand relationship, price, and production of goods or services, thus triggering economic effects. When market demand increases, commodity prices rise, and production is increased to meet the demand, which in turn promotes economic growth and job creation. Conversely, when market demand decreases, prices fall, and producers reduce production and withdraw from the market. The market demand effect is reflected in the promotion of technological innovation and industrial upgrading, too. When the market demand reaches a certain scale and level, companies carry out technological innovation and product upgrading to meet the needs of consumers, which progresses and develops the entire industry. Li and Xiao (2023) pointed out that the market demand effect is affected by many factors, such as the output of staple grains in the importing country, the signing of free trade agreements, and the proportion of agricultural Gross Regional Domestic (GDP) in the importing country. These factors affect the export volume of China's industry and the demand for staple food seeds and their import.

2.3. Structural Effects of Commodity Export

The structural effect of commodity export refers to the changes in the composition of commodity export on economic growth, resource utilization, environmental impact, and industrial structure of a country or region in international trade. This effect reflects the intrinsic relationship between the upgrading of commodity export structure and economic development as an important part of international trade theory. From the perspective of economic growth, the structural effect of commodity export is manifested by the upgrading of the structure of commodity export. When the proportion of high-tech and high-value-added products increases, the technological progress and industrial upgrading of the entire economic system are executed which promotes the sustained and stable growth of the economy. From the perspective of resource utilization, the structural effect of commodity export promotes the optimization of the structure of commodity export, reducing the export of products with large resource consumption and pollution and increasing the export of resource-saving and environment-friendly products. From the perspective of industrial structure, the

effect of the commodity export structure is upgraded to optimize and upgrade the domestic industrial structure. With the increase in the export of high-tech and high-value-added products, related industries are developed, and the entire industrial structure is upgraded. From the perspective of international competitiveness, the structural effect of commodity export enhances the country's competitiveness in the international market by improving the technical content and adding value for benefits in trade. The structural effect of commodity export is a complex and multi-dimensional concept and involves many aspects such as economic growth, resource utilization, industrial structure, and international competitiveness. Therefore, when formulating policies for export, the impact of the structural effect of commodity export must be considered for sustainable development by optimizing the structure of commodity export.

Dong (2020) investigated the effect of commodity export structure on two-way investment between China and countries along the "Belt and Road" and discussed the optimization level, influencing factors, and impacts. The results help understand the current situation and development of commodity export structure and allow for policy formulation and decision-making. Gong (2023) pointed out that the impact of commodity export structure upgrades the efficiency of the green economy and the learning, structural, and environmental regulation effects. By optimizing and upgrading the structure of commodity export, technological progress, industrial structure upgrading, and environmental regulation are achieved, thereby improving the efficiency of the green economy and realizing the green transformation of the economy.

2.4. Competitiveness Effect

The competitiveness effect is used in the analysis of international trade and export growth to describe how a country's or region's advantage in the export of a product. The competitiveness effect is reflected in the change in the export value of a certain product due to changes in the competitiveness of a country. Competitiveness is changed by a variety of factors, including technological innovation, cost control, quality improvement, brand building, and marketing strategies. In international trade, a country's products must have competitiveness in price, quality, and services. This advantage attracts buyers, thereby increasing the export value. Therefore, the competitiveness effect is an important driver of a country's export growth. The analysis result of competitiveness effects helps policymakers better understand the competitiveness of the export and develop effective export promotion strategies. For example, if a product has competitiveness, the government considers increasing support for the industry by providing tax incentives and strengthening technology research and development to add competitiveness. It also helps companies better position themselves in the international market, clarify their strengths and weaknesses, and formulate targeted market strategies. Companies can enhance their competitiveness by improving production technology, improving product quality, and optimizing sales channels, and gaining a larger market share.

In general, the competitiveness effect is an important indicator of a country's or region's export products, which is of great significance for export growth, export promotion strategies, and market strategies. Yan et al. (2023) analyzed the causes of trade fluctuations of agricultural products from Central and Eastern European (CEE) countries in the Chinese market and concluded that the agricultural products of CEE countries are relatively competitive in the Chinese market, which promotes their export growth. The competitiveness effect changes in different periods. Using the competitiveness effect, the agricultural products of CEE countries meet market demand, improve product quality, and optimize their export structure.

2.5. Related Research

Because of its vast territory and abundant natural resources, China is often known as the "mother of the world's gardens". Its territory spans more than 50 latitudes with a unique natural landscape. At the same time, China's ornamental horticulture is highly reputed in the world. China's flower industry started later than other countries and has gone through stages such as start-up, growth, development, adjustment, and breakthrough. After nearly 40 years of rapid development, China's flower industry has opened a new chapter in China's exports. Although China ranks first in the world in terms of flower cultivation area, its output value per unit area still needs to be improved compared to other developed countries.

China's flower industry has gradually evolved from scattered cultivation by small-scale farmers to today's modern and intensive business model. Many industrial bases with distinctive characteristics have been formed, such as the Yunnan base famous for fresh-cut flowers, the Guangdong base focusing on bonsai, and the Shanghai base focusing on seedling production (Wang et al., 2014). At the production level, through the automatic cutting system of seedlings, in the production of fresh-cut flowers, automated assembly lines are used (Mao, 2023). The mode of production has also changed from the original resource-oriented to technology-centric. From the perspective of market positioning, the flower industry has expanded from a single domestic market with equal emphasis on domestic and foreign markets. At the same time, in terms of development strategy, quantitative to qualitative changes were made in pursuing quality products (Jiang, 2003).

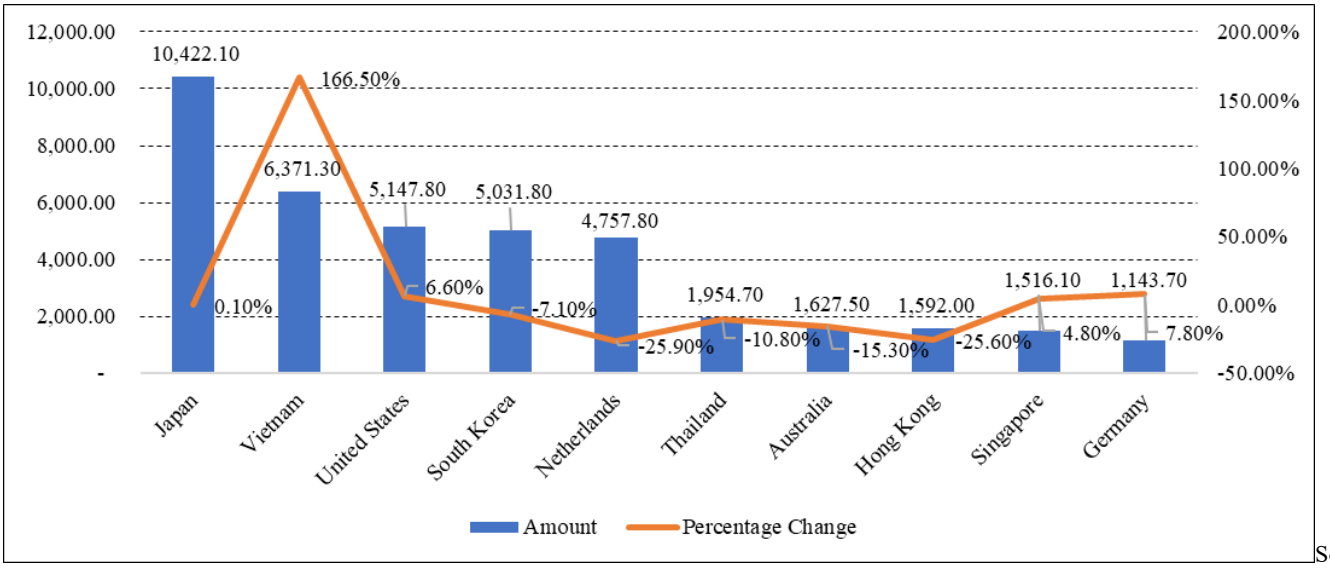
According to the existing literature on the international competitiveness of fresh-cut flowers, the export of China's fresh-cut flowers is concentrated in neighboring countries or regions, such as Japan, Hong Kong, Macao, ASEAN, and Korea. In particular, Japan has been China's largest importer of fresh-cut flowers, while ASEAN is important. This market concentration reflects the characteristics of China's fresh-cut flower export (Yang, 2014). The commercialization of the native flora of southern Africa was researched, including potted flowers and leaves ("green plants"). The contribution of native and/or endemic species to the development of fresh-cut flower crops in southern Africa is widely recognized. Although South Africa has abundant bulbous flowers, relatively few species are commercialized. Trade results reflect the importance of a small number of varieties (Reinten et al., 2011). Sarkar (2023) stated that the flower industry can create a growth potential of 25−30 % and generate 20−25 times more foreign exchange than cereals or other crops, indicating that the flower industry has become the most dynamic and rapidly expanding industry.

3. Current Situation of China's Fresh-cut Flower Industry and Exports

3.1. China's Fresh-cut Flower Industry

The flower industry is important in agricultural development as a market-oriented industry in China. The flower industry develops in an orderly manner under the guidance of policies and norms. In July 2021, the National Forestry and Grassland Administration issued the "Outline of the 14th Five-Year Plan for the Protection and Development of Forestry and Grassland" to promote the breeding and standardized cultivation of flowers and strengthen product innovation and development. By 2025, the annual output value of flowers will be USD 49 billion. By 2025, the innovation system of the flower seed industry will be established, and the market share of flowers with intellectual property will be increased. The structure of the flower industry will be more optimized, and the innovation of science and technology for developing the industry will be improved.

According to the Ministry of Industry and Rural Affairs, in 2020, China's fresh-cut flower planting area reached 75,100 ha, the sales of about USD 4.5 billion, and import and export trade exceeded USD 700 million. The main varieties of fresh-cut flowers are Yueji, chrysanthemum, and their cut leaves. The main production areas are Yunnan, Jiangsu, Zhejiang, and Guangdong. In 2022, China's flower products were exported to 112 countries and regions including Japan, Viet Nam, the United States, Korea, the Netherlands, Thailand, Australia, Hong Kong, Singapore, and Germany which imported 81.86% of the total flower exports (Fig. 1). Among them, Japan ranked first, with an import value of USD 104.221 million.



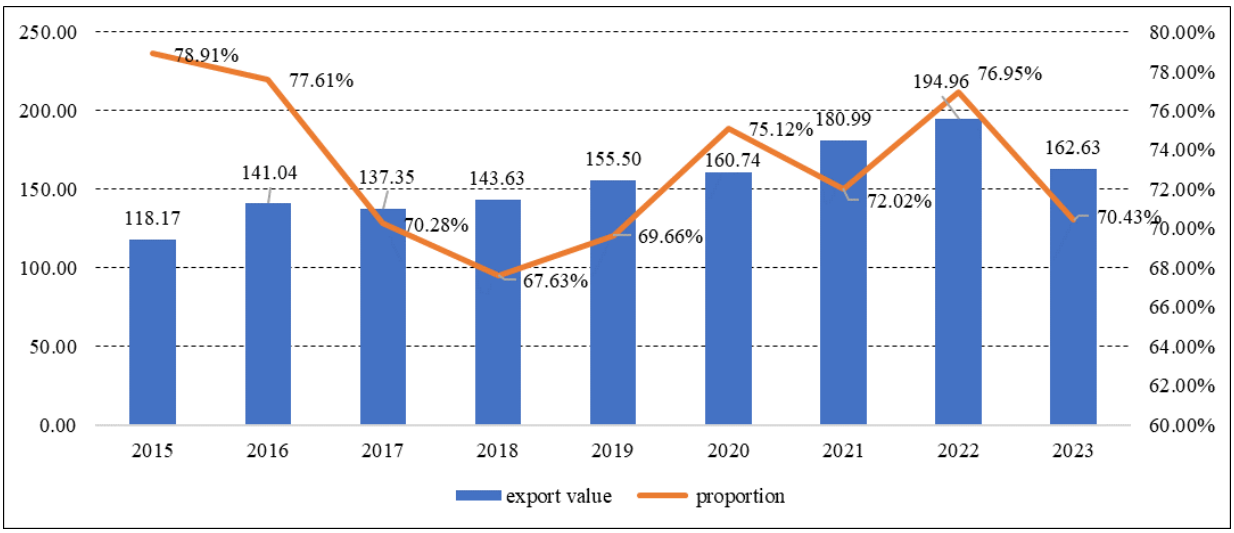
Source: Ministry of Commerce of the People's Republic of China

Fig. 1. Exports of fresh fresh-cut flowers by country and region in 2022 (unit: million US dollars).

3.2. China's Export to Japan

China's flower exports to Japan composed more than 55% of China's total exports from 2015 to 2023, indicating that Japan is the most important market. From 2017 to 2022, China's exports to Japan increased steadily (Fig. 2). In the global economic downturn

in 2022 and 2023, the proportion of exports decreased by USD 323.3, while the proportion of China's exports to Japan decreased from 76.95 to 70.43%. The global economic downturn impacted China's exports of fresh-cut flowers to Japan considerably.

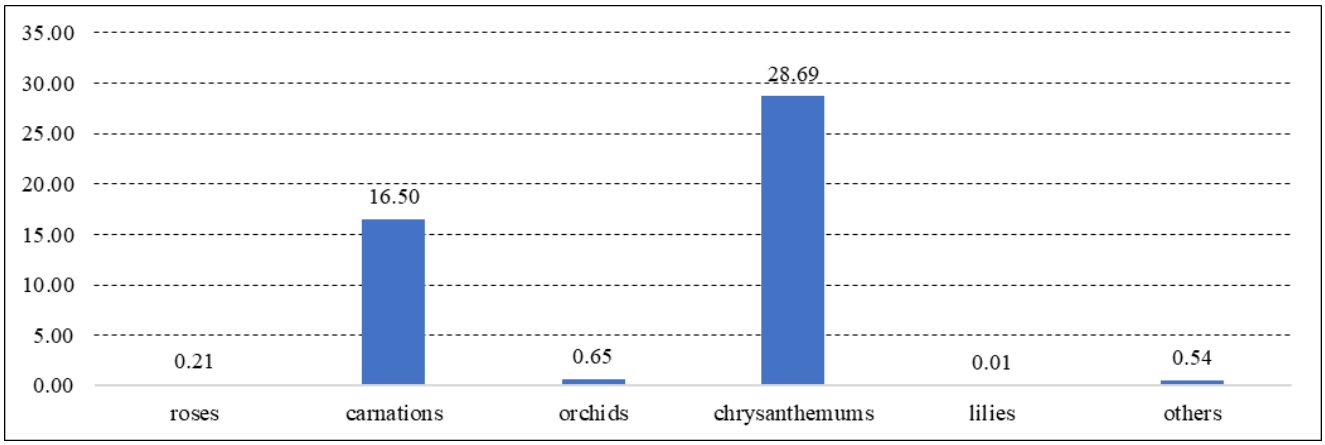


Source: CEIC China Economic Database

Fig. 2. China's export value and proportion of fresh-cut flowers to Japan from 2015 to 2023 (unit: million US dollars).

Fresh-cut flowers exported to Japan are diverse including roses, carnations, orchids, chrysanthemums, and lilies. Chrysanthemum is the most important product to Japan. The market demand for chrysanthemums in Japan is increasing as chrysanthemums are important in Japanese culture. Chrysanthemums are a symbol of the Japanese imperial family and are used in traditional festivals and celebrations. Therefore, the demand for chrysanthemums in the Japanese market continues to be high. Secondly, Chinese chrysanthemum cultivation has advantages as China has the climate and soil conditions appropriate for chrysanthemum growth, and the chrysanthemum planting technology is mature. This has allowed China to produce high-quality, reasonably priced chrysanthemums to meet the needs of the Japanese market.

With the continuous development of Sino-Japanese trade relations, the flower trade between the two countries is active. China's fresh-cut flowers become more popular in the Japanese market as companies have participated in international flower exhibitions for extensive communication and cooperation with Japanese importers. In 2023, the export of chrysanthemums reached USD 28.69 million (Fig. 3).



Source: CEIC China Economic Database

Fig. 3. China's exports of fresh-cut flowers to Japan in 2023 (unit: million US dollars).

4. Analysis of China's Exports of Fresh-cut Flowers

4.1. CMS Model

In international trade, the CMS model is widely used to analyze the causes and factors of international trade changes and industrial competitiveness. The CMS model was proposed by Tyszynski and developed by Leamer and Stern (1970), Richardson (1971), Jepma (1986), and Milana (1988). Jepma's model (1986) is the most influential and widely used as it is based on the basic assumption that a country's export market share is relatively stable.

Export growth or decline can be attributed to changes in competitiveness. Thus, the difference between the expected and actual values of exports (imports) is attributed to the influence of market size, trade structure, and competitiveness. The export growth rate is decomposed into market share, competitiveness, and product structure effects. The market share effect refers to the expansion or contraction of the market share of a product due to changes in the market size, thereby affecting the total export volume. The competitiveness effect refers to changes in total exports due to the changes in the international competitiveness of products. The product structure effect refers to the changes in total exports due to the optimization or deterioration of the export structure of a product. Based on this, the CMS model was used to analyze the growth of China's fresh-cut flower exports to Japan in this study to understand the competitiveness of China's fresh-cut flowers in the Japanese market. By comparing and analyzing the changes in the market share, the competitiveness of China's fresh-cut flowers in the Japanese market in different periods was explored by determining the factors affecting the export. The results can be used to formulate China's fresh-cut flower export strategy. Since the types and volume of China's fresh-cut flower exports to Japan are stable, the CMS model of the fresh-cut flower products in Japan was constructed as follows.

The first layer of decomposition is defined as

$$\Delta q = \sum S_i^0 \Delta Q_i + \sum \Delta S_i Q_i^0 + \sum \Delta S_i \Delta Q_i \quad (1)$$

=Structural Effect)+(Competitiveness Effect)+Second-Order Effect)

The second layer of decomposition is formuated as

$$\Delta q = S^0 \Delta Q + \left(\sum_i S_i^0 \Delta Q_i - S^0 \Delta Q\right) + \Delta S Q^0 + \left(\sum_i \Delta S_i Q_i^0 - \Delta S Q^0\right) \quad (2)$$

= (Growth Effect)+(Product Structure Effect)+(Comprehensive Competitiveness Effect)+(Product Competitiveness Effect)

where Δq represents the change in China's exports of fresh-cut flowers to Japan, S represents the proportion of China's total exports of fresh-cut flowers to the total imports of Japan, and S_i represents the proportion of China's Class I fresh-cut flowers in the total imports of Japan, Q represents the total import value of Japan, and Q_i represents the total import value of Japan. Superscript 0 indicates the base period indicator. In Eq. (1), the growth factors are decomposed into structural effects and competitiveness effects, and in Eq. (2), the structural effects are further decomposed into growth effects and product structure effects (Table 2).

Table 2. Decomposition effect of the second-order CMS model.

Items	Explanation
Changes in the value of exports	Changes in China's exports of fresh-cut flowers to Japan
First-order decomposition	
Structural effects	Changes in China's exports of fresh-cut flowers to Japan due to changes in the scale of Japan's fresh-cut flower imports
Competitiveness effect	Changes in China's fresh-cut flower export value to Japan caused by changes in China's fresh-cut flower export competitiveness
Second-order decomposition	
Growth effect	The increase in China's fresh-cut flower exports to Japan due to the expansion of Japan's imports

Product structure effects	It measures whether China's export of fresh-cut flowers is concentrated in Japan's fast-growing fresh-cut flower products
Comprehensive competitiveness effect	Changes in China's exports of fresh-cut flowers to Japan caused by changes in the overall market competitiveness of China's fresh-cut flowers
Product competitiveness effect	The contribution of the change in the export share of China-specific fresh-cut flowers to the growth of total exports

4.2. Growth Factors of China's Fresh-cut Flower Exports to Japan

The data were obtained from the United Nations Commodity Trade Database, and the classification of fresh-cut flowers was referred to the United Nations Statistics Office and the Harmonized Customs Coding System (HS060310). For comparable analysis, the data from 2015−2023 were divided into the first 4 years, the second 3 years, and the last 4 years. In order to improve the credibility of the data and the comparability of the results, and avoid the bias of the results due to abnormal data in a certain year, the average value of the period was used as the trade volume.

In the CMS model, multiple factors such as the demand and competitiveness of products were analyzed. Table 3 shows the results of the analysis. In the first-order decomposition scenario, structural and competitive effects hindered the growth of China's fresh-cut flower exports to Japan. From the first to the second period, China's fresh-cut flower exports to Japan fell by USD 761.84 million mainly due to negative competitiveness effects. The structural effect also decreased USD 57.24 million in exports, accounting for 0.08% of the total decrease. The results revealed that the scale and structure of the demand of the Japanese market were affected by the growth of China's fresh-cut flower exports. China's fresh-cut flowers did not meet the preferences of Japanese consumers during this period. The negative competitiveness effect adversely affected the performance of China's fresh-cut flowers in the Japanese market, resulting in a decline of USD 704.6 million or 92.5% of the total decrease. This showed that the competitiveness in the Japanese market needed to be improved, and at the same time, the export structure to Japan also must be adjusted.

In the second and third periods, China's exports to Japan increased by USD 298.9 due to the rebound in global trade after the pandemic in 2020. In this period, the structural effect significantly enhanced China's fresh-cut flower exports to Japan, reaching USD 106.09 million, and the contribution rate was 0.35%. This indicated that China's fresh-cut flowers met the needs of the Japanese market. At the same time, the negative impact competitiveness effect was reduced, driving the export of USD 192.81 million, with a contribution rate of 0.65% showing the improved competitiveness of China's fresh-cut flowers in the Japanese market.

Table 3. Decomposition of the growth factors of China's agricultural export trade to Japan.

	First to Second Periods		Second to Third Periods	
Growth Factor Analysis	Absolute Amount (USD)	Percentage (%)	Absolute Amount (USD)	Percentage (%)
Real export growth	-761.84	100	298.9	100
First-level Decomposition				
Structural effects	-57.24	-0.08	106.09	0.35
Competitiveness effect	-704.60	-92.5	192.81	0.65
Secondary Decomposition				
Growth effect	-10,247.46	-13.45	3,724.58	12.46
Product structure effects	10,190.21	13.38	-3,618.48	-12.11
Comprehensive competitiveness effect	-2,215.19	-2.91	-256.97	-0.86
Product competitiveness effect	1,510.58	1.98	449.79	1.50

Source: Compiled by the study.

In the second-order decomposition, structural effects were divided into growth and product structure effects. In the first and second periods, the product structure effect promoted China's exports of fresh-cut flowers to Japan by USD 10,190 million with a

contribution rate of 96.47%, showing that the growth of the demand for China's fresh-cut flowers was the leading factor in export growth. The product structure effect also promoted the export growth of USD 321 million, with a contribution rate of 13.38%, which indicated that the export structure of China's fresh-cut flowers was matched with the demand structure of the Japanese market.

However, from the second to the third period, the growth effect on exports increased, while the contribution rate of the product structure effect decreased by -12.11%. There was a mismatch between the export structure of China's fresh-cut flowers and the demand structure of the Japanese market in the same period. The competitiveness effect was decomposed into the comprehensive, competitiveness, and product competitiveness effects. From the first to the second period, although the competitiveness effect showed a hindrance effect, the product competitiveness effect impacted exports. Although China's fresh-cut flower products were competitive in the Japanese market, several products were not competitive enough. In the second and third periods, the competitiveness effect was negative, but the competitiveness of China's fresh-cut flowers was recovered. Thus, the competitiveness of several products was improved. The positive impact of the growth effect increased the exports to Japan. In general, the competitiveness of China's fresh-cut flowers in the Japanese market gradually increased to optimize the export structure.

5. Discussion and Conclusions

Based on the CMS model's analysis of the growth factors of China's fresh-cut flower exports to Japan, the market share effect turned out to play a positive role in China's growth in Japan's fresh-cut flower exports due to the rapid development of China's fresh-cut flower industry and the continuous improvement of product quality. At the same time, the popularity and influence of China's fresh-cut flowers in the international market increased, laying a foundation for expanding market share in the future. The product competitiveness effect negatively affected the growth of China's fresh-cut flower exports to Japan due to a gap between the fresh-cut flowers and Japan's market demand in terms of variety, quality, and packaging. To enhance product competitiveness and understand consumer needs and preferences, research on the Japanese market needs to be carried out. Targeted product development and improvement are needed to improve the competitiveness of China's fresh-cut flowers in the Japanese market as the product structure effect and the overall competitiveness effect increased China's fresh-cut flower exports to Japan. By optimizing the product structure of fresh-cut flower exports and enhancing the overall competitiveness, China's fresh-cut flower exports can be increased. The product structure must be optimized to enhance competitiveness by adjusting the types of export products, improving product quality, adding value, and strengthening brand building. The growth effect also increased China's fresh-cut flower exports to Japan. While China's fresh-cut flower industry continues to grow, market changes and risk challenges must be monitored to formulate flexible and effective export strategies to respond to possible market fluctuations and risks. The growth factors of China's fresh-cut flower exports to Japan are multifaceted, including the positive market share and growth effects and the negative product competitiveness effect. To enhance the competitiveness and export growth potential of China's fresh-cut flowers in the Japanese market, it is needed to conduct market research often, optimize product structure, improve product quality with added value, and strengthen brand building.

6. Recommendations

The primary factors for the growth of China's fresh-cut flower exports to Japan were product quality and competitiveness. At present, the international flower market is fiercely competitive, and the Japanese market has extremely high requirements for the quality of fresh-cut flowers. Therefore, China must invest in scientific research to cultivate high-quality varieties to meet the needs of the Japanese market. At the same time, a sound quality standard system for fresh-cut flowers must be established to ensure the stability and reliability of export product quality. In addition, it is essential to improve the shelf life and ornamental value of fresh-cut flowers by developing production technology and processing technology is also the key to enhancing competitiveness.

Optimizing the market structure and product structure is an important way to promote the sustainable growth of China's fresh-cut flower exports to Japan. Given the characteristics and needs of the Japanese market, the target consumer groups must be found to develop marketable products. At the same time, it is necessary to diversify sales channels and increase the market share in the Japanese market using e-commerce platforms and flower fairs. In addition, The trends in the Japanese market must be monitored to adjust the product structure in time to meet market demand.

Brand building and marketing are essential to enhance the visibility and influence of China's fresh-cut flowers in the Japanese market. Internationally competitive fresh-cut flower brands must be developed to add value to products. At the same time, it is vital to cooperate and exchange with international floral organizations and learn their advanced experience and technology to enhance the competitiveness of China's fresh-cut flowers. It is also necessary to put more marketing efforts and improving the recognition and reputation of China's fresh-cut flowers in the Japanese market through advertising and cultural exchanges.

A sound trade policy and service system are important for China's fresh-cut flower exports. The government needs to introduce a series of policies and measures such as tax incentives and financial support and support the export of fresh-cut flowers to reduce

the export costs of companies and improve export enthusiasm. At the same time, it is demanded to establish a sound export service system and provide companies with information consultation, market development, legal assistance, and other services for companies to solve the problems and difficulties in the export process. International flower trade rules must be learned and followed to create a more favorable environment for China's fresh-cut flower exports.

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References

1. Dong, C. (2020). *Research on the Impact of Two-way Investment between China and Countries along the "Belt and Road" on the Structure of Commodity Export*. Master's Thesis. Xinjiang University of Finance and Economics, Urumqi, China.
2. Gong, Y. J. (2023). *Research on the Impact of Commodity Export Structure Upgrading on the Efficiency of China's Green Economy.* Master's Thesis. Jiangxi University of Finance and Economics, Nanchang, China.
3. Jepma, C. J. (1986). *Extensions and Application Possibilities of the Constant Market Shares Analysis: The Case of the Developing Countries' Exports*. Groningen, The Netherlands: University of Groningen Press.
4. Jiang, W. X. (2003). Comparison and Reflection on the Development Status of Flower Industry at Home and Abroad. *Chinese Flower & Horticulture*, *21*, 4–5.
5. Li, J. Y., & Xiao, Y. (2023). Market Demand, Natural Barriers and Property Rights Protection of China's Seed Trade: Based on the Perspective of Spatial Spillover Effect. *Price Monthly*, *6*, 63–71.
6. Mao, G. J. (2023). Shanghai Chongming International Chrysanthemum Ecological Park Was Put into Operation with a Daily Output of 30,000 Fresh-cut Flowers. *Jiefang Daily*, 2023-08-14(006). https://doi.org/10.28410/n.cnki.njfrb.2023.003721
7. Milana, C. (1988). Constant-market-shares Analysis and Index Number Theory. *European Journal of Political Economy*, *4*(4), 453–478.
8. Reinten, E. Y., Coetzee, J.H., & Wyk, B. E. V. (2011). The Potential of South African Indigenous Plants for the International Cut Flower Ttrade. *South African Journal of Botany*, *77*(4), 934–946.
9. Richardson, J. D. (1971). Constant-market-shares Analysis of Export Growth. *Journal of International Economics*, *1*(2), 227–239.
10. Sarkar, D. (2023). Indian Floriculture in Global Perspective. *International Journal of Plant & Soil Science*, *35*(14), 228–238.
11. Tyszynski, H. (1951). World Trade in Manufactured Commodities: 1899-1950. *The Manchester School of Economicand Social Studies*, *19*(9), 272–304.
12. Wang, N., Li, H. J., Zhang, X. Y., Bai. J., & Che, D. D. (2014). Comparative Analysis of the Core Competitiveness of Flower Industry at Home and Abroad. *Northern Horticulture*, *17*, 185–190.
13. Yan, G. Q., Gao, C., Yan, H., & Wen, S. L. (2023). Research on the Influencing Factors of China's Imports of Agricultural Products from Central and Eastern European Countries: Factor Decomposition and Calculation based on CMS Model. *Agricultural Outlook*, *12*, 108–114.
14. Yang, Y. H. (2014). *Research on the International Competitiveness of China's Main Flower Products*. Beijing, China: China Business Publishing House.