



STRATEGIES TO INCREASE THE COMPETITIVENESS OF TAIWAN'S FREE TRADE PORTS BASED ON THE FUZZY IMPORTANCE-PERFORMANCE ANALYSIS



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ABSTRACT

International trade is very important to an island like Taiwan. To improve Taiwan's competitiveness and economic development, it is vital that the government sets up free trade ports. Therefore, improving the free trade ports' international competitiveness is a crucial subject. In this study, an evaluation framework was developed after discussing the literature and expert interviews. Expert questionnaires and the Fuzzy IPA research methods were used to explore strategies that enhance the competitiveness of Taiwan's free trade ports. Based on research results, initial improvements can be made on (a2) Establish an interdepartmental coordination mechanism, (a3) Integrate free trade zones, bonded zones and logistics parks into a special economic zone, (a4) Actively join various free trade organizations, (e2) Introduce reputable logistics service providers, expand the supply of goods, build public warehousing facilities and develop a multi-national container consolidation (MCC) and international logistics system and (e3) Develop cargo outsourcing to apply the "Front Shop, Back Factory" concept, at the free ports.

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Contribution/ Originality

The paper's primary contribution is investigating what are the key strategies to increase the competitiveness of Taiwan's free trade ports. And this study method combined the fuzzy and IPA concepts.

1. INTRODUCTION

Taiwan is surrounded by sea. Hence, its export and import activities rely mainly on sea and air transport. While promoting the Asia-Pacific Operation Center Plan to develop production, sea transportation, air transportation, centers of finance, telecom and media, Taiwan will also develop its own sea and air transportation center with a multimodal transport system as well as logistics channel called the Global Operation Development Plan, which is based on the manufacturer's original industrial capability to drive the domestic industry and facilitate rapid cargo handling. Given the active development of the Free Trade Agreement (FTA) in East Asia, Taiwan also plans to establish a free trade port that is expected to combine a simple and efficient customs clearance system at the logistics center, export processing zone and science park. The free trade port will have extensive processing that is capable of establishing regional logistics, cash flow, information flow, and barrier-free international trade standards. This will

help increase global industrial competitiveness to meet the challenges from nearby Asia-Pacific countries (Feng and Hsieh, 2008). Therefore, improving the international competitiveness of free trade ports is an important subject and is the main purpose of this research.

IPA (Important - Performance Analysis) is a technology that compares relative locations of specific evaluation subjects based on the importance and performance degrees (Sampson and Showalter, 1999; Wu and Shieh, 2009). The fuzzification method can help solve conditions wherein there is an obscure target, uncertain strategy environment and insufficient data. This study combines fuzzy logic and IPA to explore the importance of factors indicated by experts to improve Taiwan's free trade port competitiveness. This study could be used as an important reference for Taiwan to promote a free economic zone.

2. DEVELOPMENT CONDITIONS AND OBSTACLES FACED BY TAIWAN'S FREE TRADE PORT ZONES

2.1. Definition of Free Trade Port Zone

Council for Economic Planning and Development of Taiwan (CEPD, 2003) defines free trade port zone as follows:

A free trade port (FTP) combines a free harbor and a free trade zone. Specifically, FTP means a specific district in a country where foreign commodities are allowed to be free from tariff and customs clearance procedures and can be circulated in the district or re-exported to other countries freely. For cargo to be free from tariff procedures involving the delivery of goods into and out of the country, every country has set up an FTP in their respective harbors or airports to facilitate access of goods. Basically, a free trade port must meet the following conditions:

(1) Excellent geographical location and natural conditions (2) Good harbor group (3) broad economic hinterland (4) superior urban infrastructure (5) good industrial base (6) qualified and rich labor force (7) systematic and international financial insurance industry (8) development zone and tariff-free zone that adhere to international standards

2.2. Current Development Conditions of Taiwan's Free Trade Port Zones

Currently, there are over 600 free trade zones or similar economic zones all over the world. For example, Singapore, Hong Kong, Mainland China, Japan, Korea and the Philippines all have free trade zones or similar trade economic zones which serve as the main hub, distribution and trade center (Invest Taiwan, 2014).

To develop a global operations management model, Taiwan actively promotes the liberalization and internationalization of trade to improve the country's competitiveness and economic development. In 2003, Taiwan implemented free trade port management regulations and amended them in 2009 to improve the liberalization of the free trade port and reduce operating cost and increase efficiency. Currently, Taiwan has six sea cargo free trade ports and one air cargo free trade port; namely, Keelung Free Trade Port, Taipei Free Trade Port, Taoyuan Air Cargo Free Trade Port, Taichung Free Trade Port, Kaohsiung Free Trade Port, Su-Ao Free Trade Port and Anping Free Trade Port (Invest Taiwan, 2014).

The Keelung Free Trade Port provides port-based operations such as ship transport, international logistics, warehousing, wholesaling, as well as international import and export trade. Moreover, it has proper warehousing facility, logistics, assembly, reassembly, packing, simple processing, transportation, re-export and transfer system. Several industry clusters are generated.

The Kaohsiung Free Trade Port introduced a new energy industry. In addition, it has an oil rig platform designed for assembly work, and together with local manufacturing industries and free trade port logistics, it is a typical subcontracting process for a free trade port. The Kaohsiung Port is located in Southern Taiwan and is close to Taiwan's agricultural, fishing, and animal husbandry regions. It also has the most advanced multi-temperature frozen

goods logistics and warehouse equipment. In the future, there will be a significant focus on the rapid development of agriculture, fishing, and animal husbandry logistics.

The Taichung Free Trade Port is located at the center of Northern and Southern Taiwan with easy access to the international airport and a convenient sea and air transport service. Its radial distance to China's southeast coastal areas gives it a major advantage in terms of direct cross-straits transportation link. There are many processing and export areas near the Taichung Port that offer collective services, such as warehousing of goods, reassembly and simple processing (as a sub-packaging and distribution center), manufacturing and re-export processing and logistics to improve and add value to goods.

The Taipei Free Trade Port has a broad hinterland. It is responsible for supply chain management and serves as the logistics center for cars, petroleum and chemicals. In the future, it will open a large container center, a bulk cargo center, oil storage and transportation center. It will also provide an offshore logistics warehouse, water park, and docking area for recreational boats.

The Taoyuan Air Cargo Free Trade Port is a suitable hub for high value components and IT-related industries. It integrates air cargo transport, logistics, planning and management, etc. It has an air freight terminal, warehouse/office building, value-added park, logistics center and operations center.

The Su-Ao Free Trade Port began operations in 2010. It promotes investment in the green industry. It will introduce an international logistics center and related green industries in the future. It works with different districts outside the port and provides support to nearby industries to help boost the Lanyang industry through a subcontracting process.

The Anping Free Trade Port was built in 2013. Besides providing support to air cargo and logistics companies with a sustainable operating environment that adopts a "Front Shop, Back Factory" model, it also works together with nearby industries, agricultural production bases and science parks involved in processing and manufacturing.

2.3. Advantages of Taiwan's Free Trade Port Zones

With special geographical advantages, a powerful transportation system, rapid and efficient customs clearance process, strong manufacturing ability and a thorough B2B infrastructure, Taiwan is capable of enhancing business development, logistics, cash flow, information flow and other supply chain management to enable enterprises to facilitate product supply, order, transportation, sale and other international economic and trade activities quickly and efficiently (Invest Taiwan, 2014).

Taiwan has built manufacturing bases everywhere in the world. From the point of view of Taiwanese manufacturers, the country has built a global operations center that takes care of the needs of enterprises. Free trade ports help enhance manufacturing capability and gain competitive advantage. In addition, information and communication, science and technology, and other tools are utilized to increase the efficiency of logistics information management (Invest Taiwan, 2014).

2.4. Obstacles in Developing the Free Trade Port Zones In Taiwan

The largest obstacle in the operation of free trade zones is the measures taken to control commodity circulation as well as procedures and cost increase related to tariff, business tax and relevant taxes (CEPD, 2003).

Feng and Hsieh (2008); Chen (2010) and Lin (2013) categorized business obstacles into four types:

(1) Difficulty in simplifying business procedures. For instance, cargos cannot be transported across districts or exports via mainland cannot be declared. Customs declaration forms are also complicated to fill out. The regulatory provisions governing the free trade zones are too many and difficult to follow. Companies that use special cars to travel across districts encounter difficulties as well. In addition, calculating duties levied for transporting cargos in

certain areas is rather complicated. When commodities are declared to customs for import and export, there is slow communication between parties involved due to failure in the computer system, which affects business opportunities. (2) Difficulty in giving up control (e.g. high proportion of open-container examination). There is a conflict between customs and businesses with regard to exemption from customs inspection and examination. Companies see the need to simplify transportation procedures in and out of the ports. They also believe that the strict standards to identify documents pertaining to the products' origin hinder the development of industries. Customs require prominent enclosures between warehouse entrances and exits for segregation. When it comes to cargos, customs couldn't process the clearance first before the companies can submit the necessary documents. Moreover, there is poor coordination between customs and relevant companies.

(3) Lack of independence in business management and strict enforcement of remote inspection, account maintenance of on-site inventory and annual inventory. The items for inspection at the free trade zones are excessively subdivided, and this reduces liberalization of international logistics. The account management process applied in the trade zones is also complicated, while the monthly submission of requirements indicated in the customs declaration forms are likewise difficult to carry out.

(4) Lack of flexibility in operations. For instance, only companies located inside the ports can make product declarations. This could cause doubt in the ownership of foreign businesses. The operating procedures for transshipment of containers need to be simplified. The cost estimation of imports and exports is quite subjective. Customs has yet to coordinate with inspection authorities to provide a barrier-free trade standard.

The obstacles in environment management at free trade zones also include the following (Feng and Hsieh, 2008; Chen, 2012; Lin, 2013):

(1) In terms of internal operating conditions, there is relatively insufficient land and hinterlands for businesses. Land integration couldn't meet company requirements, and construction of both software and hardware in the area needs to be strengthened. There is also a lack of talent in the field of project marketing management.

(2) With regard to external operating conditions, it is difficult to link the industrial chain with neighboring areas and to promote outsourcing services. For international ports, the obstacles include the lack of professional link systems, bottlenecks in business operations, severe competition among local manufacturing industries, resulting in adequate incentives to investment. Besides, it also lacks Multi-country Consolidation (MCC) service, making it hard to attract current shipping industry practitioners. There is also a need for a regional integration agreement in Taiwan. The legal requirements and adaptation may increase the operating cost for some businesses, for example, facilitating transfer of goods to ensure quality and avoid delays, as well as segregation of goods.

(3) Other aspects such as responsibilities and rights of some newly established port companies need to be clarified. Policies governing various businesses should be simplified further and a one-stop service window should be created. Local regulations fail to address actual conditions at the port.

In conclusion, Taiwan has enormous advantages and features to develop free trade ports, but there are still many obstacles to resolve. Therefore, this study aims to explore how Taiwan can improve the competitiveness of its free trade ports.

3. METHOD

3.1. Research framework

Based on the review of relevant literatures and discussion with experts and researchers, this study has adopted five major orientations; namely, (A) Policies of trade liberalization promoted by the government, (B) Improve administrative efficiency in port areas, (C) Relax regulatory constraints on businesses within the trade zone, (D) Positive means to attract investment and increase presence of more enterprises and (E) Enhance port construction and

expand businesses within the port and twenty-five methods. The 25 methods are subdivided to construct the research framework for developing the competitiveness of free trade ports in Taiwan (Chang, 2014).

Table-1. Research Framework

Methods to improve the competitiveness of free trade ports in Taiwan
A. Policies of trade liberalization promoted by the government
a1. Actively promote direct cross-straits marine transportation
a2. Establish an interdepartmental coordination mechanism
a3. Integrate free trade zones, bonded zones and logistics parks into a special economic zone
a4. Actively join various free trade organizations
a5. Deregulate relevant provisions on inspections of commodities by outsourcing maintenance and processing in free trade zones
B. Improve administrative efficiency in port areas
b1. Develop a one-stop window and simplify business procedures as well as administrative processes
b2. Promote easy-access to free trade zones for international entrepreneurs
b3. Integrate and improve various kinds of information systems to enhance information access and sharing of commodity circulation
b4. Create a 24-hour system for commodity inspection
b5. Speed up cargo flow
C. Relax regulatory constraints on businesses within the trade zone
c1. Ease the mandatory regulation that requires firms inside the trade zone to have at least 5% indigenous people comprise its workforce
c2. Actively solve the problem of foreign worker employment in free trade zones
c3. Actively implement regulations on employment provisions regarding basic wages within the ports
c4. Reduce the amount invested by enterprises
c5. Extend restrictions on industry sectors stationed at the trade zone
D. Positive means to attract investment and increase presence of more enterprises
d1. Offer privileges by utilizing the land tax and other levies to attract enterprises
d2. Promote and provide assistance to Taiwanese businesses
d3. Positively promote activities for international open invitation to tender
d4. Focus more on value-added processing strategies
d5. Actively develop cargo shipping lines and flights
E. Enhance port construction and expand businesses within the port
e1. Invest in hardware and software construction in the ports
e2. Introduce reputable logistics service providers, expand the supply of goods, build public warehousing facilities and develop a multi-national container consolidation (MCC) and international logistics system
e3. Develop cargo outsourcing to apply the “Front Shop, Back Factory” concept, at the free ports
e4. Obtain the certificate of origin for cargos to increase the value of imports and exports
e5. Develop horizontal alliances and diverse businesses

3.2. Fuzzy Logic

Fuzzy set theory first was introduced by Zadeh (1965) to map linguistic variables to numerical variables within decision making processes (Mohsen *et al.*, 2011). The membership function of the fuzzy set has several types. The common ones are the Triangular Membership Function, Trapezoidal Membership Function and S-Membership Function, Z-Membership Function, Liner Membership Function and Bell Membership Function. In this study, the Triangular Membership Function is adopted since it is concise, precise and easy for calculation. The respondents' strength in understanding the questions is measured and weighed using a five-point scale. The diagram of degree of membership of fuzzy linguistic terms is shown in Figure 1.

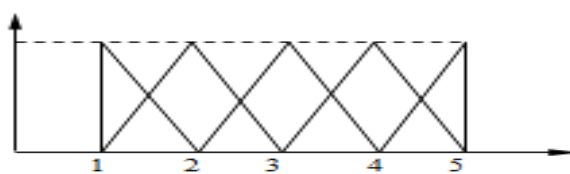


Figure-1. Diagram of degree of membership of fuzzy linguistic terms

3.3. IPA

Importance-Performance Analysis (IPA), proposed by Martilla and James (1977) draws the mean values of importance and performance satisfaction on a two-dimensional matrix figure, with X-axis representing the importance and Y-axis indicating satisfaction (Figure 2). Martilla and James (1977) failed to clearly define the criteria of matrix shaft segmentation; Hollenhorst *et al.* (1992) proposed to take each overall mean of importance and performance as the break point, which is more prudent than the middle point pattern developed by O’Sullivan (1991). IPA is easy to use and precise, and is widely applied in various studies (Hu *et al.*, 2011; Meng *et al.*, 2011; Chang, 2013).

The implications of the strategies of the four attributes in IPA are as follows: the first quadrant indicates higher evaluation on both importance and performance, with the attribute “keeping up the good work”; the second quadrant shows lower importance but higher performance, with the attribute “falling to possible overkill”; in the third quadrant, both the importance and performance have low evaluation, which indicates lower priority in terms of improvement; the fourth quadrant shows high importance but poor performance, with the attribute “enhancing focus to improve”.

Performance	Low	Importance	High
High	II Possible Overkill		I Keep up the Good Work
Low	III Low Priority		IV Concentrate Here

Figure-2. Importance – Performance Chart

3.4. Fuzzy IPA

The fuzzy IPA used in this study integrates the fuzzy logic and IPA. It involves the following steps:

- (1) List the methods to increase the competitiveness of free trade ports in Taiwan and design the questionnaires.
 - (2) Invite experts to evaluate the degree of importance and satisfaction of each method.
 - (3) Utilize the fuzzy logic to fuzzify the experts’ opinions.
 - (4) Integrate all experts’ opinions and defuzzify the results.
 - (5) Utilize “importance” as the horizontal axis and “satisfaction” as the vertical axis. The evaluation of the importance and satisfaction for each case is marked in the two-dimensional coordinate.
 - (6) Take the mean value of importance and satisfaction as the break point to divide the space into four quadrants:
- The above mentioned computation can be obtained via Microsoft Excel. To make it easier, the study designed a program based on the function and macro in Excel, which allows the users to get the analysis results and graphics by inputting the questionnaire data.

3.5. Questionnaire Design

In order to measure the degree of importance and performance determined by experts, the study used the questionnaire of experts as the research tool by referring to the proposed research framework. Using the five-point Likert scale, the “importance” aspect is divided into “very important” (5 points), “important” (4 points), “moderately important” (3 points), “not important” (2 points) and “of little importance” (1 point), in which the higher the score, the more important the attribute.

4. RESULTS

In this study, the five major directions and twenty-five detailed methods were first proposed based on relevant references and discussions with experts, before expert opinions were obtained using questionnaires. The experts

involved included port insiders, officials and researchers, as well as individuals who have at least five years relevant experience in the same field. A total of 78 questionnaires were distributed for this study.

The reliability analysis of the scale showed the overall Cronbach α value as 0.942, and the reliability values for subscales were (A) Policies of trade liberalization promoted by the government (0.712), (B) Improve administrative efficiency in port areas (0.742), (C) Relax regulatory constraints on businesses within the trade zone (0.800), (D) Positive means to attract investment and increase presence of more enterprises (0.845) and (E) Enhance port construction and expand businesses within the port (0.825), which means that the scales in this study were generally reliable. Nunnally and Bernatein (1994) likewise support the idea that a research tool with a value above 0.70 is indeed reliable.

The measured results of the Fuzzy IPA were determined using the Power IPA v1.3 program and the obtained importance and performance of each item are shown in Table.3. Based on the data, the corresponding quadrant for each item was determined as well as the directions that should be modified. The average importance value in this study was 3.814 and the average performance was 2.796, which formed the division point to draw a four-quadrant diagram. The analysis data of all items were marked accordingly in the diagram and a dot plot of importance-performance was created (Figure 3). These further helped identify ways to improve the methods.

Table-2. The results of importance-performance

Methods	Importance	Performance	Quadrant
A.			
a1.	3.727	2.974	II
a2.	4.282	2.432	IV
a3.	4.128	2.496	IV
a4.	4.235	2.325	IV
a5.	3.778	2.645	III
B.			
b1.	4.171	3.235	I
b2.	3.291	2.897	II
b3.	4.094	2.897	I
b4.	3.722	2.974	II
b5.	4.188	3.090	I
C.			
c1.	3.017	2.825	II
c2.	3.479	2.624	III
c3.	3.654	2.808	II
c4.	3.171	2.936	II
c5.	3.765	2.863	II
D.			
d1.	3.872	2.833	I
d2.	3.680	2.923	II
d3.	3.748	2.846	II
d4.	3.962	2.761	IV
d5.	3.868	2.876	I
E.			
e1.	3.944	2.923	I
e2.	4.214	2.513	IV
e3.	4.081	2.581	IV
e4.	3.829	2.667	IV
e5.	3.440	2.962	II

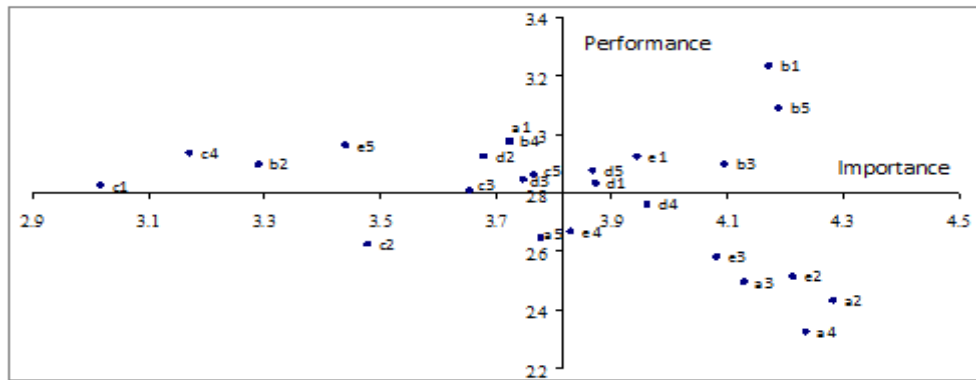


Figure-3. The dot plot of importance-performance

Results are divided according to the quadrant as follows:

(1) The first quadrant (high importance and high performance):

Six methods are in the first quadrant. There are (b1) Develop a one-stop window and simplify business procedures as well as administrative processes, (b3) Integrate and improve various kinds of information systems to enhance information access and sharing of commodity circulation, (b5) Speed up cargo flow privileges by utilizing the land tax and other levies to attract enterprises, (d5) Actively develop cargo shipping lines and flights, and (e1) Invest in hardware and software construction in the ports.

(2) The second quadrant (low importance and high performance):

Ten methods are in the second quadrant. There are (a1) Actively promote direct cross-straits marine transportation, (b2) Develop a one-stop window and simplify business procedures as well as administrative processes, (b4) Create a 24-hour system for commodity inspection, (c1) Ease the mandatory regulation that requires firms inside the trade zone to have at least 5% indigenous people comprise its workforce, (c3) Actively implement regulations on employment provisions regarding basic wages within the ports, (d2) Promote and provide assistance to Taiwanese businesses, (d3) Positively promote activities for international open invitation to tender, (e5) Develop horizontal alliances and diverse businesses.

(3) The third quadrant (low importance and low performance):

Two methods are in the third quadrant. There are (a5) Deregulate relevant provisions on inspections of commodities by outsourcing maintenance and processing in free trade zones, (c2) Actively solve the problem of foreign worker employment in free trade zones.

(4) The fourth quadrant (high importance and low performance):

Seven methods are in the fourth quadrant. There are (a2) Establish an interdepartmental coordination mechanism, (a3) Integrate free trade zones, bonded zones and logistics parks into a special economic zone, (a4) Actively join various free trade organizations, (e2) Introduce reputable logistics service providers, expand the supply of goods, build public warehousing facilities and develop a multi-national container consolidation (MCC) and international logistics system, (e3) Develop cargo outsourcing to apply the "Front Shop, Back Factory" concept, at the free ports, (e4) Obtain the certificate of origin for cargos to increase the value of imports and exports.

5. DISCUSSION

This study focuses on discussing methods that are considered relatively important by experts.

(b1) Develop a one-stop window and simplify business procedures as well as administrative processes: We experience success in the Hsinchu Science Park in Taiwan, and a key contributor is the single-window service. To accelerate the development of free trade zones in Taiwan, each zone has set up an FTZ committee in charge of

coordinating and handling relevant services in the zone, aside from providing a similar single-window administrative service which is a major factor and service quality deemed important by experts.

Another advantage of FTZs in Taiwan is the highly efficient cargo flow. Thanks to the government's effort to repeal its administrative regulation on cargo flow, operations including cargo regulation, online custom clearance and online accounting management can now be personally done by enterprises in FTZs, leading to less administrative intervention and more self-management. When foreign cargos flow in and out of FTZs or when domestic cargos pass through FTZs going to another country or other FTZs, in principle, they should be exempt from examination and inspection during clearance. The clearance of cargos transported to duty levying areas and bonded areas can be reported monthly so as to ensure efficient cargo flow.

In the following part, some items with great importance but low performance are discussed, for they are given priority in improvement.

(a2) Establish an interdepartmental coordination mechanism: To promote the development of free trade zones, the inter-departmental task force for FTZs, formed by the Department of Transportation, is responsible for examining policies and plans for FTZ development and negotiating inter-departmental proceedings. Results of this study show that this item is deemed most essential, but its satisfaction degree is the lowest. Therefore, it is suggested that the task force take more action in communicating with relevant enterprises so as to identify problems and come up with corresponding solutions while cooperating with different departments.

(a4) Actively join various free trade organizations: In response to the increase in the signing of FTA and RTA agreements among different nations in the international community, Taiwan is also taking an active role in negotiating FTA and RTA cooperation with others in the WTO framework. However, the country is still behind other competitors due to various reasons. In order to maintain international competitiveness and to prevent being marginalized in the regional integration process, Taiwan should adjust its economic and trading system and allow different industries to adapt with a relatively minimal impact. The government should also actively communicate with enterprises and create favorable conditions for liberalization and internationalization of the economy and trade. Proper guidance and assistance should be offered to small industries. Given the regional economy integration, the country must be prepared to open up its market. Furthermore, it should help enterprises adapt to relevant changes and understand their demands. This way, Taiwan can speed up its pace in obtaining membership in various free trade agreements.

(a3) Integrate free trade zones, bonded zones and logistics parks into a special economic zone: For this method, [Shiue \(2013\)](#) pointed out that currently, various special economic zones like bonded areas and logistic parks flourish in Taiwan but adhere to different laws and regulations. To reduce regulatory overlap and business problems involving cargo flow between special economic zones and free trade zones, the government should speed up its integration of free trade zones, bonded areas, logistic parks, etc., into a single special economic zone and adopt standardized administration and favorable measures so as to accelerate cargo flow.

(e2) Introduce reputable logistics service providers, expand the supply of goods, build public warehousing facilities and develop a multi-national container consolidation (MCC) and international logistics system: The international market nowadays is becoming increasingly competitive. With the acceleration of industry transfer and service trade development, a logistics development model for global purchasing, global manufacturing and global marketing is emerging. Taiwan has to form a group of logistics companies that will be able to actively participate and join the trend which will offer a smooth and efficient logistics access to major trade partners and neighboring countries, and help establish an international logistics center with global impact in response to fierce competition in the global logistics industry.

(e3) Develop cargo outsourcing to apply the “Front Shop, Back Factory” concept, at the free ports: Taiwan has applied the “Front Shop, Back Factory” strategy in which free trade zones in harbors and airports serve as the engine to drive other special economic zones by connecting supply chains of various domestic industries and linking relevant industries. Processing and manufacturing enterprises that participate in free trade zones should be integrated vertically or horizontally based on production procedures, or in case of insufficient production capacity, should resort to outsourcing to other manufacturers outside the free trade zones. Enterprises engaged in the logistics industry in free trade zones should entrust those in other bonded areas or levying areas to reorganize or carry out simple processing. In this way, the effect of the “Front Shop, Back Factory” concept can be maximized.

6. CONCLUSIONS

The development of free trade zones in Taiwan is still in the initial stage. Based on the current development of Taiwan’s free trade zones and relevant laws and regulations, it is clear that the country’s biggest advantage lies in its extensive processing which can be carried out inside its free trade zones. If Taiwan can fully utilize that, with the availability of fast-clearance service in the zones and the support of various free trade agreements, it can definitely attract more cargo companies to consider Taiwan as an import access and encourage more domestic enterprises to return for business.

At present, entrepreneurs from Taiwan have already set up manufacturing bases of different industries around the globe. If the strategy of establishing free trade zones can be implemented with the manufacturing capacity and operational scale of enterprises considered, Taiwan could gain a unique advantage and become a global operations center for local enterprises. With the adoption of information and communication technology to obtain substantial information on cargo flow at the same time, Taiwan can facilitate operation and security control, and create plans for global management. As a result, liberalization and internationalization of trade will intensify. The flow of labor, cargo, capital and technology will be more convenient. The country’s competitiveness will be enhanced and there will be further economic growth.

Currently, free trade zones in Taiwan cover six harbors and an airport, each with unique advantages. This study only attempts to provide an overall discussion of these trade zones but not the feature of each zone, which could be further explored in subsequent studies so that the issue can be discussed thoroughly and applied in relevant situations.

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