

A Comparative Analysis of the Japanese Overseas SEZ in Phnom Penh and the Chinese Overseas SEZ in Sihanoukville, Cambodia: from the Perspective of Porter's Diamond Model

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Abstract

This study focuses on the development and influence of special economic zones (SEZs), examining factors such as enterprise competitiveness, main industries, supply chain relationships, and the development environment of the zones. The lack of a consistent framework for assessing the performance and impact of SEZs has been a challenge in research. To address this, the paper employs Porter's Diamond Model to analyze the factors that contribute to the development and influence of SEZs, suggesting that this model can serve as a comprehensive framework for future SEZ research. The existing research on SEZs in developing countries is found to be inadequate. However, the SEZs established in Cambodia through collaborations with China and Japan have played a significant role in the country's rapid economic growth. By examining two specific cases — the Japanese-invested Phnom Penh SEZ and the Chinese-invested Sihanoukville SEZ — this study identifies common operational challenges faced by developing countries in establishing SEZs. Furthermore, by exploring different collaboration models and assessing the impacts on local communities, this research offers valuable insights for policymakers and international investors in their decision-making processes.

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1. Introduction

No matter what they are named in different discourses: the Chinese Overseas Economic and Trade Cooperative Zone (hereinafter: Chinese Overseas SEZ) or the Japanese Overseas Industrial Parks (hereinafter: Japanese Overseas SEZ), both are under the research domain of special economic zones. Through comparative analysis, this paper discusses and examining the current development status of the economic special zones jointly built by China and Japan in Cambodia, which contributes to a clearer understanding of the strengths and weaknesses of Chinese overseas SEZ and Japanese Overseas SEZ in terms of competitiveness. Currently, there is limited research on economic special zones in developing countries. Known as the new Tiger in the Asian economy, Cambodia has kept an annual growth of 7 per cent in GDP in recent years, leading the economic development in ASEAN (Nan Fang Cai Fu, 2019), and thereby attracted numerous multinationals from China, Japan, and South Korea. During this process, economic special zones, particularly the economic cooperation zones established by foreign entities in Cambodia, have played a significant role in promoting Cambodia's economic development. Therefore, Cambodia can serve as a case study for researching the establishment of economic special zones by foreign entities in developing countries. Both China and Japan have established joint-ventured special economic zones in Cambodia, shaping its socioeconomic outlook in a positive manner. The China-Cambodia Special Economic Zone in Sihanoukville (hereinafter: Sihanoukville SEZ or SSEZ) and the Japan-Cambodia Special Economic Zone in Phnom Penh (hereinafter: Phnom Penh SEZ, or PPSEZ) were established at similar time, and moreover, these two parks are currently demonstrating the most promising development trends within Cambodia. By selecting and conducting a comparative analysis of these two SEZs, it is possible to extract the key factors contributing to the relative success of SEZs in developing countries. Additionally, this analysis can contribute to understanding the distinct characteristics of economic cooperation with Southeast Asian countries between China and Japan from a different perspective.

2. Literature Review

This part reviews literature of the extant research in the cooperated SEZs in Cambodia in four sections. Section 1.1 discusses the concept and practices of special economic zones. Section 1.2 specifies the development of overseas SEZ cooperation from Japan in ASEAN, section 1.3 offers the counterpart development of China, and lastly, section 1.4 provides a description on the current development of various types of SEZs in Cambodia.

2.1 Special Economic Zones

Special Economic Zones, or SEZ, come in various avatars, such as free trade zones, export processing zones, industrial zones, high-tech economic development zones, science and technology parks, ecological industrial parks, and comprehensive economic special zones, to name but a few. Regarding the potential impacts of economic special zones, there has been no consensus among scholars in academia.

Some scholars argue that special economic zones can effectively promote the development of their host regions because: 1. SEZs are established within assigned areas where bundled public services are provided; 2. Government funds, often limited, can be efficiently utilized in infrastructure development; 3. SEZs promotes clustered industrial development and agglomeration (Lin & Monga,2010;); 4. SEZs can leverage economies of scale to provide environmental improvement services, such as water treatment plants and solid waste management facilities; 5. SEZs can act as catalysts for urban development by attracting investments, creating employment opportunities, raising wage levels, and improving living standards for workers within the zone (Lin and Wang, 2014; FIAS, 2008). The positive sides holding that SEZs play a catalytic role in facilitating broader economic growth, besides creating jobs (FIAS, 2008) especially for economies with a smaller population. SEZ serves as an important driver for industrial upgrading (Baissac, 2011). Also, many SEZs have achieved success in promoting exports (Farole & Akinci, 2011).

However, there are also scholars who argue that the positive influence of SEZs on the local context is limited. For example, some scholars suggest that SEZs display no significant economic impact on exports (Johansson & Nilsson, 1997), and the labor force skills has not significantly improved with the development of the zones over time (Sadni-Jallab & Blanco, 2002). The

evaluation of the economic impact on regions is challenging due to factors such as the location, the quality of infrastructure, and regional governance, all of which can affect the performance of SEZs (Aggarwal, et al. 2008).

Furthermore, existing research on SEZs primarily focuses on East Asian countries and ASEAN's "older" member states, with a lack of studies on SEZs in underdeveloped ASEAN countries. In particular, there is insufficient research on SEZs established through cooperation between foreign entities and these developing countries.

This study argues that evaluating the development effectiveness of SEZs requires a comprehensive assessment of factors such as the development environment of the zones, the competitiveness of leading enterprises, and the external conditions they can leverage. This calls for an analytical framework that encompasses the elements inherent to SEZs. Additionally, numerous news reports highlight the significant economic impetus exerted by SEZs on emerging economies in ASEAN, particularly in the case of Cambodia. Therefore, this study intends to focus on SEZs in Cambodia as the research subject.

2.2 The Japanese Overseas SEZs in Southeast Asia

There are about 30 Japanese Overseas SEZs in Southeast Asia, most of which have started operation since mid-1980s. In the recent decade, Japan has increased its investment in these industrial parks intensively, making them the most important vehicles for the Japanese investment in ASEAN (Yamada et.al, 2014). The Japanese overseas SEZs in ASEAN are similar to the Chinese counterparts. Both are catering to investment needs such as human resource development, elite management recruit, finance and business registration services, and even managerial and consulting service.

Current literature on the Japanese overseas SEZs in ASEAN mainly discusses problems and their solutions. On the problem side, firstly, there is intense competition in the land market surrounding Japanese overseas parks in ASEAN countries, leading to significant fluctuations in land prices and increased operational costs. Furthermore, inadequate title registration systems in the host countries of the parks contribute to a high rate of litigation related to land issues (OKB-KRI, 2019).

Secondly, non-transparent administrative procedures pose investment risks. The lack of transparency in these procedures can create uncertainties and obstacles for investors. Thirdly, the local infrastructure in the areas

where the parks are located is severely inadequate. This not only increases investment risks and costs but also hinders the timely progress of park construction and development. Fourthly, the lack of skilled labor and subpar living conditions present significant barriers to achieving localization of enterprises and make it difficult to continuously attract more Japanese and third-country tenants in the Zones (Yamada et.al, 2014). These problems, when analyzed from the perspective of Porter's Diamond Model, encompass challenges related to the development environment, the competitiveness of leading enterprises, and the policy coordination of parks.

On the solution side, some scholars argue that it is necessary to consider the different stakeholders involved in the SEZs. The stakeholders related to the Japanese Overseas SEZs can be divided into three categories: the leading Japanese enterprises in the zones, local partners, and the local government. The leading enterprises in the zones need to manage their relationship with the local government. Similar to research on the Chinese overseas SEZs, obtaining operational recognition from the local government is crucial to secure land acquisition and ensure support for infrastructure development. However, compared to China, Japanese research has a clearer understanding of the importance of seeking local partnership. Japanese scholars emphasize the importance of the leading enterprises in the parks finding high-quality collaborators locally, as it is directly linked to the successful development of the parks. This experience has been validated in well-operated zones in Thailand, Indonesia, Singapore, Cambodia, and Myanmar (JICA, 2012).

Based on the extant literature, the existing research conducted by Japanese scholars also lacks a consensus framework for evaluating the development effectiveness and impact of the Japanese overseas SEZs.

2.3 *The Chinese Overseas SEZ*

Chinese overseas SEZs refer to special economic zones located in foreign countries or regions with relatively well-developed infrastructure, complete industrial chains, strong driving and radiating capabilities, and significant influence in industries, agriculture, or services. These zones aim to attract investments from Chinese or other foreign companies (Wu, 2017). In order to assist Chinese enterprises in "going global" and share China's industrialization experience, the Chinese government, drawing on the successful experience of domestic industrial zones since the reform and opening-up (the Ministry of Commerce of China and the Representative

Office of the United Nations Development Programme, 2019)¹, formally proposed the establishment of Overseas SEZs in 2006 (Lu & Pei, 2019). Currently, research on China's Overseas SEZs primarily focuses on the following three aspects.

Firstly, the Chinese overseas SEZs are said to have generated positive impacts on several local economies. Peter Dannenberg (2011) argued that China's Overseas SEZs in various African countries have shown promising development. Deborah Brautigam and Tang Xiaoyang (2012) suggest that China's establishment of Overseas SEZs in Africa has activated the local economic development potential. By the end of 2019, Chinese enterprises had built or were constructing 201 Chinese overseas SEZs in 57 countries, with 138 located along the Belt and Road Initiative countries. As of September 2018, the accumulated investment in the cooperative zones within the scope of the Chinese Ministry of Commerce statistics reached \$36.63 billion, with 4,663 enterprises registered and a total of \$3.08 billion in taxes and fees paid to the host countries (Yan and Jia, 2020). Moreover, in recent years, as China pays increasing attention to cost and resource factors, as well as the need for innovative development, there has been a growing emphasis on developing technological research and development-oriented cooperation zones, leading to more diversified and advanced forms of overseas SEZs (Qi & Yang, 2018), such as technology cooperation parks and high-tech cooperation zones. Since these Chinese invested SEZs can contribute to the host country's tax revenue and employment, they are more welcomed by the host countries (Liu, 2017).

Secondly, extant research attempted to explore reasons behind the successful development of China's thriving Overseas SEZs. For example, Douglas Zhihua Zeng (2015) argued that long-term government support, a favorable business environment, promotion of local industrial upgrading, and skills training have contributed to the success of Chinese overseas SEZs. Enterprises within the SEZs can enjoy support from the local government's complementary policies as well as financial support from the Chinese government, effectively facilitating Chinese enterprises' "going global" strategy and driving local economic development (Zhang & Long, 2022). For example, the management team of the Thai-Chinese Rayong Industrial Zone leads a professional team to provide comprehensive and one-stop services to the enterprises in the zone, enabling them to benefit from specialized services as well as preferential tax treatments on income, import tariffs on

machinery and raw material (Zhang, 2018).

Thirdly, however, the Chinese overseas SEZs are not free of issues in the development process. In fact, only 20 Overseas SEZs have been confirmed and assessed by the Chinese Ministry of Commerce in recent years. The challenges are diverse, including unreasonable zoning, unclear industrial positioning, mismatch between industries and host countries' actual needs, difficulties in financing, unfavorable investment environment, shortage of specialized talents, and unsustainable operational models (Hu, Zhao & Wang, 2017). Additionally, due to inadequate relevant laws and regulations and insufficient infrastructure in most host countries of the SEZs, the host governments lack funds to meet the financial demands of the SEZs, stagnating the development of these zones (You, Cheng & Yang, 2017). Furthermore, frequent policy changes caused by political instability in the host countries pose multiple risks to the Chinese enterprises that lead the Chinese overseas SEZs (Li, 2016). Also, limited cooperation capacity between the leading enterprises and government and inadequate adaptation to the local environment have hindered the development of Chinese overseas SEZs in Southeast Asian countries, making them less accepted by local communities. Examples include the Malaysia-China Kuantan Industrial Park in its initial stage and the "Cambodia-China Comprehensive Investment and Development Pilot Zone" in Dara Sakor, Koh Kong Province.²

The research on Chinese overseas SEZs lacks a consensus analytical framework. This hinders the comprehensive evaluation and analysis of the development characteristics and issues of these zones, which could only be summarized from a specific domain or perspective. The Diamond Model, proposed by management scholar Michael Porter, can effectively integrate six aspects related to the development of Overseas SEZs. This study intends to use the Sihanoukville Special Economic Zone, recognized by the Chinese Ministry of Commerce as a qualified SEZ, as an example to analyze the advantages and shortcomings of successful Chinese overseas SEZs under Porter's Diamond framework.

2.4 SEZs in Cambodia

SEZs within borders of Cambodia are under the authorization and supervision of the Council for the Development of Cambodia (CDC). The legal framework overarching SEZ planning and development is founded on the premise of the *Sub Decree No. 147 on the Organization and Functioning*

of the CDC enacted in 2005. By 2019, there have been 23 SEZs up and running in Cambodia, and another 13 under official review for approval (Brussevich, 2020).

There is a dearth of in-depth research on the SEZs in Cambodia (Warr & Menon, 2015). Extant literature primarily focuses on evaluating their impact on the country's economy. Some scholars believe that the SEZs in Cambodia have had a positive influence on its economic development. For instance, Cambodia's 23 operational SEZs have attracted large amount of investment for Cambodia. Between 2005 and 2019, SEZs in Cambodia have drawn in over \$2 billion dollars in the initial investment (Choup, 2022). The industries operating in these SEZs mainly concentrate on light manufacturing, such as apparels, shoes, travel products, electric gadgets, automobile spare parts, plastic and other consumable products, most enterprises are export-oriented, and have contributed greatly on the country's export volume. For example, in 2018, SEZ exports accounted for 18 per cent of Cambodia's total export. Additionally, SEZs in Cambodia hire large number of labor force. By 2019, the 23 SEZs have employed over 131,000 Cambodians—providing over 22 per cent of total jobs in Cambodia (World Bank, 2014).

On the other hand, many scholars argue that the contribution of these SEZs to local development is limited. Most of these zones have had limited impact on the overall improvement of labor skills in Cambodia, as there has been a lack of significant technology and knowledge transfer (WB, 2014). This limited transfer of technology and knowledge has resulted in minimal stimulation of domestic industries in Cambodia and a lack of close connections with local enterprises, thereby providing limited improvement to the investment environment in Cambodia (Warr & Menon, 2015). This is because most enterprises within the SEZs are multinationals, and in pursuit of operational profits, most enterprises would rather rely on the foreign parental company for skill transfer and raw material supply to lower production costs (Warr & Menon, 2015).

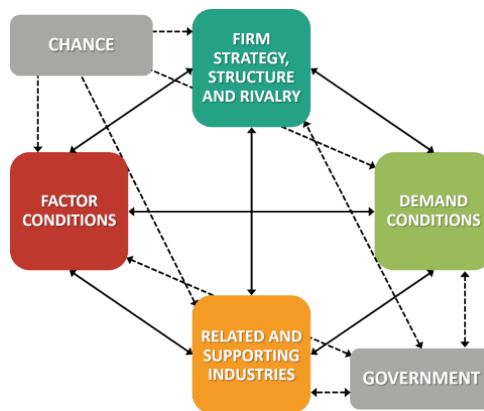
Of the 23 SEZs in Cambodia, the SEZs in Sihanoukville and Phnom Penh are the biggest job creators (Warr & Menon, 2015), and their skill upgrade and average wage also outperform the rest (CDC, n.d.) Specifically, the Sihanoukville Special Economic Zone (referred to as SSEZ) in Preah Sihanouk Province has achieved the most outstanding development performance, followed by the Phnom Penh Special Economic Zone (referred to as PPSEZ), which is a joint venture between Cambodia and

Japan (HKTDC Research, 2017) Why these two SEZs stand out among others under similar development conditions prompts the rationale of this comparative study.

3. Analytical Framework

In the 1990s, Michael E. Porter introduced a model for understanding the global competitive position of nations known as the “Diamond Framework” or “Diamond Theory”. This framework expanded upon the traditional theory of comparative advantage and made a significant impact both in theory and practice by advancing from comparative advantage to competitive advantage. According to Porter, there are four fundamental elements that an industry or a country must possess to achieve competitive advantage internationally: factor conditions, demand conditions, related and supporting industries, and firm strategy and structure, and rivalry. Additionally, government actions and chance events also have a significant influence on industrial competitive advantage. These elements interact and reinforce each other, forming the “Diamond Model” that affects the competitiveness of an industry. The six elements involved in Porter’s Diamond Model and their interrelationships are illustrated in the diagram below. These six elements constitute important components of the competitiveness of an industry or a country.

Figure 1. Michael Porter’s Diamond Model



The literature review mentioned earlier reveals that both Chinese overseas SEZs and Japanese overseas SEZs face similar challenges in their development. These challenges include a mismatch between the development environment of the host country and that of overseas SEZs, inadequate competitiveness and localization capabilities of leading enterprises within the zones, and a lack of alignment between the zones' development needs and the production factors available in the host country. These factors align closely with the analytical framework of Porter's Diamond Model. By applying this model to compare and analyze the strengths and weaknesses of the Chinese overseas SEZs and Japanese overseas SEZs, we can establish a framework for analyzing SEZs and provide a more comprehensive assessment of their development characteristics and impact.

In the context of Porter's Diamond Model, the element of firm strategy, structure, and rivalry refer to the competitiveness of leading enterprises and other companies within these SEZs. The concept of enterprise competitiveness encompasses the development plans, industrial focus, and the ability of leading enterprises to build industrial competitiveness within the overseas SEZs.

Related and supporting industries primarily refer to whether the Chinese or Japanese overseas SEZs can coordinate with relevant governmental bodies to gradually establish the required development environment for the zones. This includes aspects such as the completeness of the industrial chain within the SEZs and the improvement of the local investment environment. The development environment of the zones not only includes "hardware" aspects such as the maintenance of infrastructure like roads, electricity, and water facilities but also encompasses the extent to which the management systems in the SEZs can facilitate their development. This involves their ability to align with local policies and provide a favorable environment for the development of enterprises within the zones, such as offering the necessary elements for industrial development, including labor force, clear and stable registration processes for businesses, cohesive tax regulations, transparent business regulations, and investment policies. Additionally, recognition from international companies and the ability to attract more third-country enterprises to join the zones are also important.

Factor conditions refer to the alignment between the required production factors for the development of overseas SEZs, such as natural resources, geographical location, human resources, and capital, with the

existing production factors available in the host country. The maximization of advantageous factors and the conversion of unfavorable factors into favorable ones are essential for overseas SEZs.

Demand conditions, according to Porter, refers to the downstream logistics and distribution chain of a given industry. For an emerging market like Cambodia, on one hand, the domestic market and its distribution network relies local partners' capacity. On the other hand, most of the SEZs in Cambodia are export oriented, which accentuated the importance of local infrastructural support as well as the marketing network of the leading enterprises. On top of the business point of view, this article stresses on the importance of an overall national development and goals of the overseas SEZs and whether they align with the development needs of the host country. It also considers whether the demands and requirements for development within the overseas SEZs are consistent with the development needs of the host region.

The government factor is in three dimensions. First, it refers to the ability of the governments related to the overseas SEZs to provide sufficient policy coordination among government departments to ensure that the policies within the zones are compatible with the relevant national laws and regulations and that the customer enterprises within the zones can enjoy the benefits of relevant preferential policies provided by the host country. Second, it refers to the stability of the policies introduced by various governments related to the development of the zones. Third, it refers to the ease of implementing existing supportive policies, ensuring that the policies that support the development of the zones can be effectively implemented.

Chance factors refer to the ability of the overseas SEZs to fully grasp the trends in industrial development within the host country and whether their development can align with the current regional, global economic, technological, and industrial trends.

As mentioned earlier, there seems to be no consensus on the research framework for overseas SEZs neither in Japanese nor Chinese academic communities. There is a need for a comprehensive framework that can integrate various elements, provide a comprehensive evaluation of the development achievements and impact of the zones, and analyze the constraints imposed by the development environment on economic zones. Porter's Diamond Model can offer a new perspective for studying the development performance and impact of economic zones. The study attempts

to use Porter's Diamond Model to compare and analyze the strengths and weaknesses of the Phnom Penh SEZ and the Sihanoukville SEZ, identify common characteristics of foreign SEZ development in Cambodia, and summarize the advantages of the Chinese and Japanese overseas SEZs respectively, thereby identifying the factors that constrain the development of the overseas SEZs by these two nations.

4. Development Model of the Japan-Cambodia Phnom Penh SEZ: Strengths and Weaknesses

Phnom Penh SEZ (PPSEZ), which was approved in 2006 and commenced operations in 2007, has experienced rapid development. Covering an area of 257 hectares, it is a key investment destination for Japanese investors in Cambodia. In the early stage, 49 per cent of the shares were held by Japanese investors, while 51 per cent by Cambodian investors. The Japanese government, the Japan External Trade Organization (JETRO), the Japan International Cooperation Agency (JICA), the Japanese Embassy in Cambodia, and Japanese manufacturing companies have all played crucial roles in the inception of the PPSEZ. Recently, a subsidiary of Royal Group Cambodia (RGC), Inter Logistics (Cambodia), acquired a 45 per cent stake in the publicly listed company of the PPSEZ for 16 million USD, making Royal Group Cambodia the controlling shareholder of the PPSEZ (Cambodia Investment Review, 2022).

Currently, the PPSEZ is primarily operated by the Royal Group Phnom Penh Special Economic Zone Co., Ltd., which is engaged in the business of operating and managing the economic zone. Its main activities involve the development of industrial land for sale and lease. Additionally, it provides related services and facilities within the economic zone, including water treatment and supply, leasing services, infrastructure maintenance, consulting services, enterprise registration, import-export licenses and customs clearance services, labor recruitment and policy support, among others. According to statistics from JETRO, in 2014, the PPSEZ became the SEZ that received the highest volume of foreign investment in Cambodia. Currently, the zone is home to more than 80 companies from 15 countries, making it one of the economic zones with the highest number of resident enterprises in Cambodia (PPSEZ, 2023). Analyzing its development model using the Porter's Diamond Model, it is observed that the competitiveness of the leading enterprises, integration of local companies and government

resources, and the establishment of linkages between industries other SEZs in neighboring countries have partially addressed the adverse effects of Cambodia's unfavorable industrial environment on the zone.

4.1 Competitive Leading Enterprises of the Phnom Penh SEZ

One of the major strengths of the PPSEZ is that the leading enterprises have strong global competitiveness, which can be exemplified in three aspects: first, Sumitomo Corporation, as the leading enterprise, is an influential conglomerate itself. At the beginning of the PPSEZ, it managed to bring in 50 Japanese enterprises, including Toyota, Sato Industry, Nippon Express, and Toransiki etc. In 2006, the investment by these Japanese tenants in the SEZ totaled \$240 million dollars. Currently, there are over 100 tenants operating in the SEZ, 60 per cent of which are from Japan (Adrianople group, 2019). Currently there are 88 customer companies operating in the PPSEZ, and another 14 planning to. The total investment has registered 667 billion USD (Khmer Times, 2020)

Second, the leading enterprise in PPSEZ seems to be quite effective in attracting international corporations. For example, Coca-Cola brought \$100 million dollars into PPSEZ since December 2016, with an output capacity of 60,000 cans/hour. Furthermore, other international brands in Phnom Penh include Timberland, Puma, Apple, Sony, Canon, IBM and Old Navy. By 2016, the SEZ has attracted over \$470 million dollars of foreign direct investment, topping the list of all SEZs in Cambodia (Nicolas, 2018). Currently, the main industries in the PPSEZ include the production of automotive components, electronic parts, and other high-value-added products. While attracting American enterprises, it has also attracted Chinese investors to produce high-value-added products such as fiber optics, plastic components, and solar panels (Cambodia Investment Review, 2022). The zone is currently catering to 88 companies from 15 countries.

Third, the Japanese leading enterprise partnered with strong local corporation to enhance localization and adaptation to the local environment, which helped with easier acceptance by the local communities. The LHC Investment Group is the local partner of the leading enterprise Sumitomo in establishing PPSEZ. This partnership greatly helped the PPSEZ with its localization. Specifically, in terms of land acquisition, LHC is responsible for liaison with the local government, smoothing the way to beneficial terms on the lease agreement. Secondly, with the help of the local partner,

easier communications with related government divisions, the preferential policies are carried out in a smoother manner. Thirdly, the local partner also helps offering consultations to other investors within the SEZ in areas of policy instructions, investment trends, and even business registration processes. With the help of local partners such as LHC, the SEZ organized a professional public service team consisting of representatives from the Development Bureau, Ministry of Commerce, Customs, Quarantine, Anti-Fraud Bureau, Ministry of Labor and other related government organs. This team efficiently provides services to the PPSEZ in business registration, operations, taxation, and customs clearance etc.

4.2 Related and Supporting Industries: Japanese Leading Enterprise's Key Success Factors in Phnom Penh SEZ's Development

The related and supporting industries are well utilized by the Phnom Penh SEZ in its development. This can be seen in the following practices: first, the PPSEZ has made clear requirements on operation standards to all its tenants. These requirements are mainly about the standardized taxation reporting procedures. Since its inception, the PPSEZ involved PWC to help tenants standardize their accounting and taxation procedures. Secondly, all tenants are required to pass the ISO quality management standard and ISO14001 environmental management standard accreditations. The international standards guarantee the recognition from the local government and potential local partners. Thirdly, the Japanese leading enterprise actively negotiated with the Cambodian government to raise the salaries for officials working within the SEZ while demanding higher level of professionalism, in an attempt to curb potential bribes and improve the operation environment. Fourthly, with regard to the supply chain integration, the PPSEZ is highly compatible with Japan's "Thailand+1" and "China +1" strategies of industrial development on the Indochina peninsula. The grand scheme allows the PPSEZ to integrate into the larger manufacturing network with industries in other Japanese SEZs in Thailand and Vietnam, which quickens the development of the PP SEZ. These advantages have enhanced the image of the PPSEZ among potential tenants and local communities in Cambodia. Worth noticing, the PPSEZ has established a sub-zone called the Poi Pet Economic Special Zone (Poi Pet SEZ) at the Thai-Cambodian border, aligning a collaborative development trend between the two zones. The Poi Pet SEZ functions similarly to the PPSEZ, leveraging the Southern

Economic Corridor of the Greater Mekong Subregion Cooperation (GMS) led by the Japanese government. It utilizes Thailand's infrastructure, Cambodia's labor force, and serves Japan's "Thailand+1" strategy, providing greater investment convenience for more Japanese manufacturing and warehousing and distribution companies. Currently, the industries of the enterprises in the Poi Pet SEZ mainly focus on automotive components, electronics, garments, packaging, plastic products, and parts manufacturing. The Poi Pet SEZ and the PPSEZ together serve as development nodes along the Ho Chi Minh City-Phnom Penh-Siem Reap-Bangkok Southern Economic Corridor of the GMS. The coordinated development of these two SEZs has allowed the PPSEZ to maintain a favorable development momentum even during the COVID-19 pandemic. According to the company's financial report published at the end of 2021, the PPSEZ's revenue exceeded 6 million USD in the fourth quarter of 2021, and 10 million USD annually; In 2019, the export value of goods from the PPSEZ reached 518 million USD, a year-on-year growth of 15.9 per cent. Among the exported products, 68 per cent were sold to Japan, Thailand, China, and Vietnam (Cambodia Investment Review, 2022). These advantages make it easier for the PPSEZ to achieve its development goals and gain recognition from the local society in Cambodia.

Disadvantages: the PPSEZ is oriented in serving Japanese multinationals' industrial strategy, and disregards Cambodia's need to develop its own industrial path. The leading enterprise Sumitomo Co., as a profit-driven company, does not have the motivation to strategize Cambodia's industry development schema. Therefore, riding with the PPSEZ and its subsidiary, the Poi Pet SEZ, Cambodian manufacturers are currently anchored at the subordinate position in the Japanese manufacturing network in the Mekong subregion. Holding the Cambodian manufacturing in the PPSEZ as a subordinating part in the industrial chain of Japanese companies in Southeast Asian countries has further limited the independent development of local industries in Cambodia. This also indirectly confirms the concerns of several scholars about the limited spillover effects of SEZs (Khmer Time, 2016).

4.3 Factor Conditions: Phnom Penh SEZ Solved Part of the Financing Problem But Other Problems Remain

The Phnom Penh SEZ has successfully transformed adversarial conditions to advantageous conditions. For example, to guarantee sufficient electricity

supply, the SEZ has its own power generating facilities. Additionally, to ease the pressure of capital insufficiency, the SEZ went public in 2016 as the largest SEZ in Cambodia. At the first day of listing, the stock price of the PPSEZ opened at 2,980 Riel per share, and the trade volume registered 24,078 shares, worth \$17,927 US dollars in the first day (Adrianople group, 2019). In 2019, the market capitalization of the SEZ reached \$35 million US dollars (Adrianople group, 2019). Recently, the PPSEZ was acquired by the Royal Group Cambodia at \$16 million USD.

Disadvantages: the cost of electricity is relatively high, and in the meantime, logistics costs are high due to insufficient infrastructure outside the PPSEZ. Also, although the SEZ has tried to upgrade skills of the labor force through training, the lack of skilled workers continues to restrict further development of Cambodia. By April 2016, there have been 80,000 jobs within the SEZ, however only 15,000 workers were employed (Adrianople group, 2019). Furthermore, the actual wage increase in Cambodia recently denotes that the era of cheap labor is about to end (the China-UNDP ASEAN Symposium, 2017). In 2012, the minimum wage of textile workers was \$61 US dollars, which increased to \$140 in 2016, and \$182 in 2019. The increased labor costs have driven out many low-end labor-intensive Japanese manufacturers from the SEZ (Adrianople group, 2019). Lastly, the high illiteracy rate in Cambodia requires longer time of training and education to achieve the level of productivity as in Thailand and Vietnam (the China-UNDP ASEAN Symposium, 2017). Counting for training costs, the labor cost in Phnom Penh is not low.

4.4 Demand Conditions: The Matched Demands of Phnom Penh SEZ and Local Development

Development goals of Phnom Penh SEZ are aligned with the *Cambodia Industrial Development Plenary 2015-2025*. The latter, officially issued in March 2015, has projected higher productivity and diversity of sustainable economic growth through skill transformation, and clearly proposed a transition to higher value adding productions through structural reform, expecting to transform Cambodia into an industrial nation (the China-UNDP ASEAN Symposium, 2017). The Plenary has listed five priorities: to promote investment through improving investment environment and developing SEZs; to cultivate modern small and medium enterprises through institutional facilities, incentive measures and agricultural modernization;

to improve supervision environment; to provide counterpart policies for coordination; to improve investment environment by enhancing electricity availability, reducing manufacturing costs, developing logistics systems, and improving labor market administration. All of these goals are in line with that of the Phnom Penh SEZ in its development measures.

Both PPSEZ and Sihanoukville SEZ are instrumentally accordant with the *Special Economic Development Plans 2009* and the *Cambodia Trade Integration Strategy (2014-2018)*. For example, the main industrial goals of PPSEZ is to attract labor-intensive industries, such as apparels, shoes, food processing, agricultural products, mechanical electrics and other consumables (e.g., pharmaceuticals and packaging). A few companies are dedicated in auxiliary industries, such as carton, plastic packaging and threads manufacturing. These industries have reduced fragility of Cambodia in sluggish times of the global apparel industry (the China-UNDP ASEAN Symposium, 2017).

4.5 The Governmental Force: Government's Support to Phnom Penh SEZ

The Japanese-Cambodia PPSEZ cannot go without the support and promotion from the Cambodian government. This support has two advantages: firstly, the leading enterprise Sumitomo and the Cambodian government have jointly established the SEZ development platforms. For example, the Cambodian government founded the Council for the Development of Cambodia in 2005, chaired by Prime Minister Hun Sen. The CDC issued the administrative order of establishing special economic zones in the nation and promised to fully support the development of SEZs. The other institutional support from the government includes the Cambodia Special Economic Zone Board, which is responsible for the joint-administration of the SEZs. Furthermore, other functional platforms include the SEZ Administrative Office, Administrative Service Center, Center for Business Registration, Labor Dispute Arbitration, and the Obstacle Removal Committee of SEZs led by the Prime Minister Hun Sen, who would personally get involved whenever major issues occur.

Secondly, the government also provides multiple preferential policies to the SEZs. The first, qualified investors enjoy preferential taxations policies, including exemptions of import tariff of construction materials and machinery, import and export tariffs on raw materials, and free profit taxes for SEZ tenants. The second, preferential taxation policies apply to

QIP enterprise investing in the SEZ, including exemption of tariffs and VATs on construction materials, machinery, and productive materials for exporting companies as well as companies targeting domestic markets. Other preferential policies include non-discriminant treatment to foreign investors other than land ownership. Foreigners and foreign companies enjoy 50 years of lease period of land titles (transferrable). Lastly, no limitation on currency exchange and capital transfer. However, the government has insufficient tools to let SEZ industries conform to the nation's own industry development.

4.6 Chance

Cambodia is enjoying its golden development opportunity. In the past decade, the Cambodian economy has kept high rate of growth, which promoted the transitional window for Cambodia to transform from textile industry to a variety of other industries, thereby improving its position in the global value chain. Secondly, the Cambodia Industrial Plan (2015-2025) and its institutional strategy guarantees the direction of modernization of agricultural and service industries, which is expected boost up higher growth rate. Thirdly, as an emerging market, many industries in Cambodia are at its infant stage, such as e-commerce, IT sectors. Vacancy means commercial opportunity. Fourthly, the "Thailand+1" strategy of Japanese companies in Southeast Asia and the development of the Southern Economic Corridor in the Greater Mekong Subregion (GMS) continuously promoted by the Asian Development Bank and the Japanese government. The development of the PPSEZ also aligns with these development trends, resulting in a shift towards higher value-added industries within the zone.

5. Advantages and Disadvantages of the Sihanoukville SEZ

The Sihanoukville SEZ is a joint effort by Chinese and Cambodia enterprises in Sihanoukville province in Cambodia. The SEZ officially incepted in February 2008 by the Prime Minister Hun Sen. In October 2016, president Xi Jinping called the Sihanoukville SEZ an "exemplar model for pragmatic China-Cambodia cooperation (Li and Shi, 2016). The SSEZ features in promoting development of the entire province of Sihanoukville through the development of the SEZ. The following offers an analysis of the development of this SEZ from the perspective of the Porter's Diamond model, and points out the advantages and disadvantages of its development.

5.1 Enterprise Competitiveness

Hongdou International is the leading enterprise of Sihanoukville SEZ, and the following discusses its competitiveness. Firstly, Hongdou has competitiveness in the textile industry, which is also the determinant of the industry positioning of the Sihanoukville SEZ: to be a comprehensive, modern SEZ specializes in textiles, apparels, and mechanic electrics. As a result, the first batch of tenants are mostly in the textile industry, such as Suzhou Yunying Textile Co., Poly Textile, Golden Morning Knitting, and Mingyuan Home Textile etc.

Secondly, Hongdou has some competitiveness in attracting investors. Currently, 103 tenants have signed up for the SSEZ tenures, among which, 88 manufactures are in operation. See Table 4 for a list of some worthy performers. Thirdly, the cooperation between Hongdou and local authorities is smooth. Tenants of the SEZ enjoy 9 years of tax exemption, and the government provides one-stop service from administrative to custom clearance. The administrative services include business registration, custom clearance, quarantine, origin of product certification etc., all can be done at the one-stop service window at the comprehensive service center in the SEZ. Such arrangements are similar to those in the Phnom Penh SEZ.

Table 1. List of Sihanoukville SEZ’s Tenants

No.	Company	No.	Company
1	HongDou International	20	Qiushi Polyurethane Materials (Cambodia) Co, Ltd.
2	Shandong Forest Wood (Cambodia) Co., LTD.	21	Guifeng Optoelectronics Technology (Cambodia) Co., Ltd.
3	Ophiah Leather (Cambodia) Co., Ltd.	22	Romantic Leather (Cambodia) Co., Ltd.
4	Else·Electronic (Cambodia) Co., Ltd.	23	Oceans·(Cambodia) Co., Ltd.
5	Izymi Electronic(Cambodia) Co., Ltd.	24	Hai Lingmeng (cambodia) Home·Textiles Co., Ltd.
6	Cambodia Gateway Under Wear Co., Ltd.	25	Kaitai Home Textile (Cambodia)
7	Rebecca Hair Products (Cambodia) Co., Ltd.	26	Fazzinin Home Textile (Cambodia)Co., Ltd.
8	Suncheng Industry (Cambodia) Co., Ltd.	27	Zhejiang Dongchen Construction Co., Ltd.
9	Keri Sofa Leather (Cambodia) Co.,·Ltd.	28	

No.	Company	No.	Company
10	Kolaiya (Leather) Cambodia Co., Ltd.	29	Nanjing Yaohua Earthwork Engineering Co., Ltd.
11	J.D.Y.Pharm Co., Ltd	30	Hexxon International
12	Jiangxia Clothing (Cambodia) Co., Ltd	31	Corporation Co., Ltd
13	Wells (Cambodia) Steel Engineering Co., Ltd.	32	Link Star Logistics Co., Ltd
14	Huihuang Shoes Co., Ltd.	33	Royal Cargo Combined-Logistics Inc
15	Wan Hai Hanger (Cambodia) Co., Ltd.	34	Junhui Shipping (Cambodia) Co., Ltd.
16	Cambodia Saint Rose Garment Co., Ltd.	35	Jiahua Bank
17	Caffco International (Cambodia) Co., Ltd.	36	Horseware Products (Cambodia) Co., Ltd.
18	Cambodia Full Star Home Textiles Co., Ltd.	37	Galey Global (Cambodia) Co., Ltd.
19	Cambodia Handlift Product Co., Ltd.	38	Jinchengyuan (Cambodia) Co., Ltd.

Source: Website of the Sihanoukville SEZ

Thirdly, Hongdou has leveraged the Chinese textile supply chain to promote the development of imports and exports in Cambodia. The textile enterprises within the Sihanoukville SEZ, as part of the global textile industry supply chain in China, have played a positive role in enhancing the global competitiveness of Hongdou's in the textile industry. Particularly after the outbreak of the COVID-19 pandemic, the import and export volume in the cooperation zone has maintained a growing trend. According to Cambodian customs data, in 2020, the SSEZ handled a total of 44,325 TEUs of import and export containers, representing a 27.42 per cent increase compared to the previous year. The total import and export value reached \$1.565 billion, showing a 26.52 per cent increase compared to the previous year. This has played a proactive role in stabilizing local employment and promoting economic and social development (Renminwang, 2021). In 2021, the cumulative total import and export value of all enterprises in the zone reached \$2.234 billion, with a year-on-year growth of 42.75 per cent, injecting strong momentum into local development (SSEZ, 2022). The foundation for achieving the aforementioned development lies in the preferential trade conditions that Cambodia enjoys in various sectors with European and American countries, which has facilitated the establishment of a manufacturing base for the textile industry in the SEZ. In terms of the

contribution of the Sihanoukville SEZ to Cambodia's imports and exports, it is on par with the leading companies in the Phnom Penh Special Economic Zone in terms of strength.

Fourthly, the initial impact on the local society has emerged. The development of the SSEZ has not only brought changes to the occupational structure of the local population but also stimulated the economic development of the province. According to statistics from 2022, the SSEZ has provided 30,000 job positions for the local population, and approximately 70 per cent of households in the area have family members employed in the zone (*Renmin Ribao*, 2022). This significant workforce proportion has resulted in a higher ratio and scale of local residents employed in the SSEZ compared to other SEZs in Cambodia. Through the efforts of SEZ and the local community, in 2017, the per capita GDP of Preah Sihanouk province exceeded \$2,000, ranking among the highest in Cambodia, and the economic contribution of the Sihanoukville SEZ to the province exceeded 50 per cent (*China Daily*, 2019). From 2007 to 2017, the SEZs in Preah Sihanouk province and Phnom Penh not only experienced the fastest employment growth but also showed significant improvements in average wages and education levels compared to other regions (Cambodia Social Economic Survey, 2013; CDC, 2017).

Disadvantages of the leading companies are as follows: First, the SSEZ lacks attractiveness to third-country companies other than those from China and Cambodia. Although information from the official website of the SSEZ shows the presence of companies other than Chinese ones, apart from local enterprises, there are only a few third-country companies, such as Cathay United Bank, Caffco International, and an Irish car assembly plant.

Second, the profit model is relatively singular, and the profitability is slightly insufficient. Land leasing and property management are the main profit sources for the SSEZ. Despite adopting a market-oriented approach, the continuous provision of various public services in the cooperation zone incurs significant costs. In recent years, there has been no significant growth in land leasing and property management fees. Considering the overall situation, the existing profit capability of the business model of the SSEZ is unable to sustain higher operating costs. The tenant enterprises operating separately from the SEZ also face insufficient profitability.

5.2 *Related and Supporting Industries and Development Environments*

The SSEZ has availed some conditions in terms of related and supporting industries from three aspects: firstly, investment preferential policies and institutions are continuously improved. Both Cambodia and China are members of WTO, and the trade between the two countries is increasing convenient. Cambodia does not suffer from trade barriers such as anti-dumping and anti-subsidy applied by developed nations, and the production costs in Cambodia are relatively low. Also, with the inception of China-ASEAN FTA and RCEP, Cambodia-made products can enter markets in 16 regional partners without tariff.

Secondly, relevant management institutions and public service facilities have been improved. The SSEZ has established a “one-stop” administrative service window consisting services from the Cambodian Development Council, Customs, Inspection and Quarantine, Ministry of Commerce, Department of Labor, and Sihanoukville Provincial Government. This provides tenant enterprises in the SEZ with “one-stop” services such as license processing, registration, customs clearance, and inspection. Additionally, hotels, dormitories, and a trade market have been constructed, and service-oriented institutions such as logistics clearance companies, shipping agents, and Cathay United Bank have been introduced to improve the production and living environment within the zone (Zhao, 2021, p251). Through infrastructure improvement and effective policy coordination, Sihanoukville’s infrastructure ranks among the top in Cambodia’s special economic zones. According to Table 2, the Sihanoukville SEZ has advantages over other special zones in Cambodia in terms of water supply, waste treatment, telecommunications facilities, and electricity connectivity and pricing.

Table 2. Evaluation of Operation Environment of SEZs in Cambodia

Location	Water	Waste Disposal	Telecommunications	Electricity
Phnom Penh	1.4	2.1	2.3	1.8
Bavet	1.9	2.0	2.1	2.7
Sihanoukville	1.8	1.9	2.2	2.3
Poipet	2.0	2.0	3.0	3.0
Footwear	1.7	1.9	1.6	2.1
Garments	1.9	1.9	2.1	2.6

Location	Water	Waste Disposal	Telecommunications	Electricity
Home Furnishings	1.6	1.9	2.6	2.2
Light machinery	1.9	2.3	2.3	2.3
Luggage and bags	2.0	1.6	2.0	2.4
Other light manufacturing	1.7	2.2	2.3	2.4
All respondent firms	1.8	2.0	2.2	2.4

Notes: 1 = Good, 2 = Average, 3 = Poor

Source: Warr, P. & Menon, J. (2015, p. 16).

Thirdly, the improvement of the above-mentioned environmental conditions in the SSEZ has made it the best-performing economic zone in Cambodia in terms of overall business environment. Based on the development in various aspects mentioned above, the business environment of enterprises in the SSEZ excels not only in terms of infrastructure quality, quality of public services, and policy stability but also surpasses the average level of Cambodia’s economic zones. It achieves the highest rating among the major special zones in Cambodia, as shown in Table 3.

Table 3. Evaluation of Overall Business Environment of SEZs in Cambodia

Location	Quality of Infrastructure	Quality of Public Services	Variability of Government Policies
Phnom Penh	2.6	2.7	2.3
Bavet	2.9	3.1	2.1
Sihanoukville	2.3	2.6	1.0
Poipet	3.0	3.0	2.0
Footwear	2.4	2.6	1.7
Garments	2.6	2.9	1.9
Home Furnishings	2.3	2.8	2.2
Light machinery	2.9	2.7	1.9
Luggage and bags	2.4	2.2	1.4
Other light manufacturing	2.8	3.0	2.5
All respondent firms	2.6	2.8	2.0

Notes: Columns 1 and 2: 1 = Very good, 2 = Good, 3 = Average, 4 = Poor, 5 = Very Poor. Column 3: 1 = Very good, 2 = Good, 3 = Average, 4 = Low, 5 = Very low.

Source: Warr et al. (2015, p. 22).

The deficiency in terms of the supporting conditions in the SSEZ is mainly the insufficient attraction of local enterprises, which is necessitated by the lack of localization of the SEZ. This issue is not unique to the SSEZ but common to other SEZs in developing countries like Cambodia. Researchers believe that SEZs in developing countries have limited impact on the development of local enterprises. Data shows that only 12 per cent of registered local companies in Cambodia are located within SEZs, while 62 per cent of local companies are outside of these zones. This significant difference indicates a relatively weak linkage between economic zones and local businesses and the local economy.

5.3 Factor Conditions: Changes in the Sihanoukville SEZ and the Entire Province

The factor conditions available to the Sihanoukville SEZ are similar to that of the Phnom Penh SEZ, namely, advantageous geographic location and low-cost labor force (Jia, 2012). On the other hand, the unfavorable conditions are also similar: insufficient infrastructure, high logistics cost, lack of skilled labor and insufficient development capital. However, it is noteworthy that the SSEZ has achieved more output in terms of transforming local conditions: the overall development not limited within the SEZ, but radiated to the entire Sihanoukville province. Such changes can be seen in the following categories:

Firstly, infrastructure wise, the SSEZ has put up its own water supply factory, power plant, which satisfied water and electricity supply in the SSEZ. According to related statistics, the level of infrastructure development in SSEZ ranks among the best of all SEZs in Cambodia, as seen in Table 3. Furthermore, the SEZ also takes the lead in local infrastructure development. Currently, the average electricity cost in Sihanoukville has reduced to 7-8 US cents from 15-20 US cents, a benefit for both enterprises and people living in Sihanoukville (Li and Shi, 2016). Prior to the establishment of the SSEZ in 2007, Sihanoukville Province lacked large capacity sea ports and highways. Even the mileage of national roads was limited, resulting in a low overall level of transportation infrastructure. Currently, with the transformation of the port by the SSEZ, the port transportation has become a highlight for attracting investment in the SSEZ, facilitating the import and export of goods in the zone and Sihanoukville City. Since the opening of the Phnom Penh-Sihanoukville Expressway, constructed with Chinese aid, the travel

time from Phnom Penh to Sihanoukville has reduced from 8 hours to 2.5 hours, improving Cambodia's transportation system and effectively reducing logistics costs (Sohu, 2020). This can be seen from Table 5 in subsequent sections that the SSEZ enjoys higher convenience in container transportation and multimodal connectivity compared to other special economic zones in Cambodia.

Secondly, the SSEZ has developed its own characteristics in talent development. By establishing training centers and subsequently building universities, it addresses the shortage of technical and managerial talents in the cooperative zone and the local area. In 2012, Sihanoukville and Wuxi Business Vocational College jointly established a “training center” where diploma courses in Chinese, English, Management, Trade, Accounting, Computer Science, and Logistics are taught. Since 2012, the training center has organized 14 classes of training, involving 40,000 trainees. On this foundation, the China-Cambodia Sihanoukville Institute of Science and Technology was established in 2018. The college now has over 700 students. In late 2018, another college, co-invested by SSEZ and Wuxi College of Business Administration, the Sihanoukville Institute of Business and Technology has been approved for degree education (Xinhua Net, 2019). Boosted by these projects, the number of skilled workers continues to increase, not only higher than Phnom Penh, the quantity also stands out among all other SEZs in Cambodia (War & Menon, 2105), see Table 4.

Table 4. Employee Structure of Cambodian SEZs (By SEZ Location and Category of Industries)

Location	Low-Skilled Production Workers		Semiskilled Production Workers		Nonproduction Workers (managers, administration, sales)	
	Khmer	Foreign	Khmer	Foreign	Khmer	Foreign
Phnom Penh	2,294	0	491	42	129	42
Bavet	9,542	19	7,621	109	567	213
Sihanoukville	2,142	7	2,262	17	94	118
Poipet	315	0	15	0	2	0
Footwear	6,068	0	1,097	12	233	51
Garments	3,881	0	4,367	85	179	73
Home Furnishings	1,190	0	2,039	11	118	137

Location	Low-Skilled Production Workers		Semiskilled Production Workers		Nonproduction Workers (managers, administration, sales)	
	Khmer	Foreign	Khmer	Foreign	Khmer	Foreign
Light machinery	256	0	1,326	5	112	60
Luggage and bags	150	7	622	1	16	16
Other light manufacturing	2,748	19	938	54	134	36
All respondent firms	14,293	26	10,389	168	792	373

Source: Warr et al. (2015, p. 16).

Currently, the SSEZ faces two main issues related to factor conditions. Firstly, tenant companies face difficulties in financing, which is associated with poor financing conditions in Cambodia. The market mechanisms in Cambodia are not sufficiently sound. While Cambodia's unrestricted foreign exchange was originally an advantage to attract foreign investment, the drastic fluctuations in exchange rates are susceptible to global economic fluctuations, thereby increasing the difficulty for foreign enterprises to secure financing. As the leading enterprise—Hongdou, finds it desperate to change the investment environment in Cambodia. Moreover, the construction investment in the SEZ is substantial, resulting in higher risks, and lenders often set high thresholds (Zhang, 2018). Additionally, as the SEZ involves overseas investments, it is difficult to obtain loans from Chinese commercial banks. These factors contribute to financing difficulties faced by many Chinese overseas SEZs, including the SSEZ.

Secondly, there is room for improvement in the proportion of local people in technical and managerial positions within the SSEZ. The proportion of local talents in these positions within a SEZ is a key indicator of the zones' ability to transfer skills to the local population. As shown in Table 4, while the SSEZ has a considerable number of semi-skilled technical workers and managerial talents, there is still significant room for improvement when compared to the Bavet Economic Zone and the footwear industry. Furthermore, the insufficient local talents are not only a challenge faced by Chinese overseas SEZs but also for other SEZs in developing countries.

5.4 Demand Conditions: Match of Demands Between Sihanoukville SEZ and Local Community

Similar to the Phnom Penh SEZ, the Sihanoukville SEZ matches with the socioeconomic development of the Cambodian society in terms of demands. Such match in demands has realized a harmonious development dynamic between the SSEZ and Sihanoukville province. Specifically in two aspects:

Firstly, SSEZ has outstanding logistics capabilities. Currently, there are 116 enterprises operating within the SEZ, most of which are export-oriented manufacturers. The seaport of SSEZ has robust infrastructure conditions, which becomes the highlight of Sihanoukville in attracting investors as the port provides convenience in cargo trades as well as lowered logistics costs (SSEZ, 2017). As shown in Table 5, the logistics cost in Sihanoukville SEZ has competitive advantage among all other SEZs in Cambodia.

Table 5. Comparison of Logistics Costs Among Cambodian SEZs (By Location and Industries)

Location	Average Transport Cost per Caontainer to Port (\$)	High Cost	Major Logistics Difficulty	
			Uncertainty in Delivery Dates	Lack of Multimodal Connectivity
Phnom Penh	1,500	100	0	0
Bavet	503	78	11	0
Sihanoukville	500	46	11	11
Poipet	250	100	0	0
Footwear	489	57	0	0
Garments	599	64	7	0
Home Furnishings	743	71	7	21
Light machinery	738	71	14	0
Luggage and bags	338	80	0	0
Other light manufacturing	544	55	18	0
All respondent firms	614	66	9	5

Source: Warr et al. (2015, p. 26).

Secondly, the development goals of SSEZ fit the local demand, and thereby pushing the entire province of Sihanoukville forward. Statistically, in 2017, the GDP per capita in Sihanoukville province exceeds \$2,000 US dollars, top the whole country. Furthermore, the SEZ alone has contributed over half of the province's GDP and provided over 30,000 jobs in the province of Sihanoukville (*Wuxi Ribao*, 2019).

5.5 Government: Policy Supports from both Chinese and Cambodian Governments

The Sihanoukville SEZ has received significant support from the governments of China and Cambodia since its establishment, successfully completing policy coordination and forming policy interaction advantages. Firstly, the SSEZ was established based on an intergovernmental agreement. On December 13, 2010, the two national governments have signed the *Agreement between the Government of the People's Republic of China and the Government of the Kingdom of Cambodia concerning the Sihanoukville Special Economic Zone*, which laid the foundation for policy communication and coordination for the development of the SSEZ.

Secondly, the Chinese and Cambodian governments have established a Policy Coordination Committee. As early attempts to coordinate policies with Cambodian partners encountered difficulties, the Chinese Ministry of Commerce and the Cambodian Development Council have organized two working group meetings and two deputy ministerial meetings since 2012 to address interregional and interdepartmental matters on a regular basis.

Thirdly, in the Joint Statements issued by China and Cambodia in 2012, 2016, and the Joint Communiqué in 2019, the SSEZ was identified as a priority development project. The high-level supports from the Chinese and Cambodian governments and their commitment to the development of the SSEZ have effectively addressed institutional differences and policy adaptability issues encountered during its development. Therefore, achieving policy coherence and coordination in the cooperative zone requires joint efforts and investment from both businesses and governments. The advantage of policy coordination in the SSEZ is similar to that of the Phnom Penh SEZ.

5.6 Chances

The development opportunities for the Sihanoukville SEZ, apart from the previously discussed developmental chances, also come with the all-round cooperation with China. In April 2019, *the Action Plan 2019-2023 on Building China-Cambodia Community of Shared Future* was officially signed (Wang, 2019). In terms of the economic cooperation, the plan proposed a complete docking strategy under the BRI framework where the two nations will gradually form a high level of economic integration as a mutual reliance interest community, for the wellbeing of people of the two nations. This high-level institutional arrangement undoubtedly provides important opportunities for the Sihanoukville SEZ development.

6. Conclusion

This study analyzed the strengths and weaknesses of two major SEZs in Cambodia under the framework of Porter's Diamond Model. The analysis has revealed the following findings. Firstly, the key reason why both the Phnom Penh SEZ and the Sihanoukville SEZ have achieved the best development prospects in Cambodia is that they possess some basic elements required for the development of SEZs. They not only seize the development opportunities in their respective countries but also effectively coordinate policies within the SEZs through intergovernmental cooperation. Moreover, the leading enterprises demonstrate strong competitiveness and have the ability to transform unfavorable production factors into favorable ones, gradually improving the business environment within the zones, founded on which, the SEZs are able to attract continuous investments from companies of different nationalities, providing a large number of employment opportunities for local people. Furthermore, both the PPSEZ and the SSEZ can leverage their domestic manufacturing industry chains to have a positive impact on expanding Cambodia's import and export activities. From this perspective, the Porter's Diamond Model can serve as one of the frameworks for analyzing the competitiveness and influence of SEZs. However, since this article is based on qualitative analysis, its generalizability may be limited, and it is expected that more quantitative analysis can be conducted from this perspective for validation.

Secondly, investments in the Phnom Penh SEZ are primarily driven by corporate behavior. The focus of the leading companies is more on corporate

profitability, and the Japanese SEZs are positioned as a subordinating position within the “Thailand+1” strategy of the conglomerates. When promoting the integration of Phnom Penh into the southern economic corridor of the GMS and the “Thailand+1” industrial chain of Japanese companies through its subsidiary, Poi Pet SEZ, the Phnom Penh SEZ may have limited capacity and space to consider Cambodia's own manufacturing industry development. On the other hand, the development of the Sihanoukville SEZ is not only driven by corporate behavior but also by intergovernmental cooperation, as mentioned earlier, and therefore carries greater responsibilities. Based on the development of the SSEZ in the past decade, it has focused more on improving the business and development environment both within and outside the SEZ. Additionally, due to the relatively narrow profit model of the SSEZ and the various restrictions faced by Chinese state-owned enterprises in foreign financing, the SSEZ still faces some financing issues. These differences not only reflect the distinct characteristics of the two SEZs but also highlight the key differences in Chinese and Japanese investment behaviors in Southeast Asian countries.

Thirdly, it is challenging for both SEZs to bring about structural changes in their respective cities through the SEZs in the short run. Therefore, both SEZs face limitations in driving industries outside the zones. Since the investments in the PPSEZ are more corporate-inclined, the interaction between the PPSEZ and other Japanese overseas SEZs in Southeast Asia is more prominent than with Cambodian companies outside the PPSEZ. In the case of the Sihanoukville SEZ, it appears to intend to have a greater impact beyond the zone, considering the improvements in the industrial environment and talent development models. As mentioned earlier, the construction of local social infrastructure and the cultivation of talents have significantly improved at the provincial and municipal levels in Sihanoukville. The changes in the development environment have an undeniable impact on the local communities of Cambodia. As the development environment changes, it not only optimizes infrastructure such as electricity and transportation but also potentially drives changes in the local people's perception of “development” and a shift from an agricultural-dominant population structure to an industrial and service-oriented one. This awareness and change in the social structure are crucial for Cambodia's sustainable development. However, relying solely on the development of the SSEZ is insufficient to bring about structural changes in Cambodia's development

environment. Therefore, the “Joint Statement between China and Cambodia” released in 2023 proposes that China will encourage more Chinese companies to invest and operate in Cambodia, supporting the construction of the Sihanoukville Multi-Functional Economic Demonstration Zone to promote the development of Cambodia’s “industrial development corridor”. In the future, more domestic and foreign companies from Cambodia will be encouraged to participate in Cambodia’s development to gradually promote greater industrial development. The different characteristics of the Sihanoukville SEZ and the Phnom Penh SEZ also provide different options and paths for Cambodia’s industrial development.

Notes

1. Research on International Trade and Economic Cooperation issued by the Ministry of Commerce of China and the Representative Office of the United Nations Development Programme in 2019 pointed out that “Overseas economic and trade cooperation zones are an important platform to carry and consolidate the development experience of China’s 40 years of reform and opening up”.
2. During the initial stages of the construction of the Malaysia-China Kuantan Industrial Park, there were various speculations and distrust from the Malaysian media towards the economic park, partly due to inadequate communication between the industrial park and the local community. Similarly, in the case of the “Seven Stars Bay Cambodia-China Comprehensive Investment and Development Experimental Zone” established by Chinese companies in Preah Sihanouk Province, there have been allegations by foreign media of it being a military base. This is partly attributed to the lack of collaboration between the leading enterprises of the experimental zone and local businesses, as well as insufficient transparency in the dissemination of information about the experimental zone’s construction.

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