

## C/ DETAILED OUTLINE

### I. Executive Summary

- Location (1 sentence)
- Historical data (1 sentence)
- Competitive advantage (1 sentence)
- Challenges & Recommendation (1 sentence)
- Comparative advantage (1 sentence)

### II. Introduction (1-2 slides)

- **Introducing global context**
  - + Global trade and commerce context

**Example:** As per Kyove's (2021) definition, globalization refers to the interconnectedness and the growing exchange of products, services, technology, and employment opportunities on a global scale. The remarkable surge in globalization has led to a substantial improvement in international trade. In terms of numbers, global trade reached an unprecedented high of \$28.5 trillion in 2021, as reported by UNCTAD in 2022 (UNCTAD 2022a). Consequently, because of the rising trend in global business, there is a noteworthy need for key trading centers strategically positioned at crucial global junctions.

- + Introducing the critical role seaports play in that market

Hints: As pivotal hubs connecting nations, facilitating the movement of goods, and driving economic growth.

- **Introducing the report content**
  - + State the main aim of your report and presentation

**Example:**

The overarching aim of our report and presentation is to offer a comprehensive and insightful exploration of [Name of Chosen Port]. We seek to unveil the intricacies of this maritime giant, dissecting its historical journey, operational intricacies, competitive advantages, comparative positioning, and the formidable challenges it confronts. By doing so, we aim to provide a well-rounded perspective on this port and offer recommendations that can contribute to its future success.

### III. Overview

- Location

- + Discuss reasons for location the port

**Hint:** Explore geographical, economic, strategic, and historical reasons that led to its establishment in a specific area.

### **Example: Strategic positioning of Singapore port**

Singapore is internationally recognized as a prominent global business center and currently ranks as the second most active container port globally in terms of trade volume ([Hirschman 2023](#)). The Port of Singapore has greatly benefited from its strategic positioning close to the Malacca Straits, known as one of the busiest maritime routes worldwide. Singapore's port boasts an extensive network of approximately 200 shipping companies, facilitating smooth connections to 600 ports across the globe.

- Historical evolution
- + Providing insights into the early emergence of the port
- + Its initial purpose
- + The historical context that led to its creation.

### **Example:**

Prior to the 19th century, Singapore was renowned as a key trading and service gateway, strategically positioned at the intersection of major global shipping routes connecting China, Australia, Europe, and Asia (Tan 2023) (Figure 1).

Following the establishment of the Suez Canal in 1869 and the advancement of steamboat services, the significance of Singapore's port grew substantially, offering ship repair and maintenance services (Tan 2023). The canal not only reduced shipping durations between Europe and Asia but also contributed to a remarkable increase in total trade volume, which reached \$105 million between 1870 and 1879 (Singapore National Library Board 2019a).

- Trace the development and growth of the port over time.
  - + Identify any significant disruptions or challenges if any
- Hints: This could include wars, economic downturns, technological changes, or shifts in trade patterns.

### **Example:**

During the 1940s, World War II caused significant disruptions to the port, leading to its temporary closure ([Tan 2023](#)). Furthermore, the Japanese occupation in 1942 resulted in the destruction of 70% of transshipment depots and severe damage to the shipyards ([Tan 2023](#)). Singapore regained independence in 1965, leading to renewed investment and development of the port ([Singapore National Library Board 2019b](#)).

- Key milestones, expansions, and changes in its operational capacity.
  - + Innovations or adaptations that contributed to its development.

**Example:**

Since then, the Port of Singapore has experienced substantial growth and has become one of the world's largest maritime hubs. According to [MPA \(2023\)](#), the Singapore port continues to rapidly expand and advance technologically.

Notably, the Mega Tuas project aims to consolidate the ports of five areas—Tanjong Pagar, Pasir Panjang, Keppel, and Brani—into a centralized port in Tuas, positioning Mega Tuas to become the world's leading port ([Miswan 2022](#))

#### IV. Operational functions

- Imports & Exports (data)
  - + Comprehensive data on the imports and exports handled by the port.
  - + Include statistics, figures, and trends about the volume and types of goods passing through the port.

**Example:**

The Port of Singapore, due to its significant importance and remarkable growth, has solidified its position as a crucial node within the global transportation network ([Li 2018](#)). In 2022, the port managed a cargo volume of approximately 37.29 million TEUs (Twenty Foot Equivalent Units) ([Statista Research Department, 2023](#)). Its operations blend advanced transport and infrastructure activities, making a substantial contribution to Singapore's and Southeast Asia's economic advancement ([Tam 2023](#)).

- Function
  - + Insights into key industries or sectors that rely on the port's services.

**Example:**

Beyond serving as an international transshipment hub, the Port of Singapore stands out as a pioneer in running highly efficient container terminals ([Clemente et al. 2023](#)). The handling of bulk cargo, containers, and Ro-Ro services at the port is executed with remarkable efficiency, which greatly aids in optimizing the global supply chain. In terms of procedures, the Port of Singapore ensures transparency and regulatory compliance by implementing various mandatory customs declarations, import permits, commercial invoices, and bills of lading.

- Infrastructure
  - + Key facilities and structures that contribute to its operational capacity.
  - + Hint: Information about terminals, storage facilities, transportation networks, and any recent infrastructure developments or expansions.

### Example:

The infrastructure at the Port of Singapore is a multifaceted network of cutting-edge facilities, including specialized terminals, storage units, and efficient transportation connections. These elements combine to enhance the port's operational capacity and contribute to its status as a prominent global trade hub.

Recent infrastructure developments, such as the Mega Tuas project, underscore the port's commitment to continual improvement and expansion, solidifying its role as a vital node in international commerce.

- Internal processes:
  - + List of the specific functions and procedures that the port currently carries out.

**Hint:** Customs clearance, cargo handling, vessel scheduling, security protocols, etc.

- + How these processes contribute to the port's overall efficiency.

### Example:

The Port of Singapore executes a comprehensive range of functions and procedures critical to its operational efficiency.

These encompass customs clearance, efficient cargo handling for various types of goods, precise vessel scheduling to minimize congestion, stringent security protocols, navigational support services, ship maintenance and repairs, environmental compliance measures, technology integration for streamlined operations, meticulous documentation management through digital systems, and logistics services to facilitate end-to-end cargo movement ([Singapore customs 2023](#)).

Collectively, these processes contribute to the port's status as a global leader in maritime trade, ensuring the swift and efficient flow of goods and vessels throughout the region.

- Documentation requirements
  - + Explain the types of paperwork, permits, and compliance measures necessary for both imports and exports.
  - + Digital or paper-based documentation systems in place.

### Example:

Documentation requirements at the Port of Singapore are critical to ensuring smooth import and export processes.

For imports, businesses must provide essential documents, including import permits, commercial invoices, bills of lading, and customs declarations. These documents are vital for customs clearance and the efficient movement of goods through the port.

On the export side, exporters are required to submit documentation such as export licenses, certificates of origin, and packing lists.

To enhance efficiency and reduce paperwork, the port has implemented advanced digital documentation systems. These systems allow for the electronic submission of manifests, bills of lading, and customs declarations, streamlining the entire documentation process. This digitization not only expedites documentation but also enhances accuracy and traceability, contributing to the port's reputation as a global trade leader.

## **V. Competitive Advantage**

### **1. Overview**

Provide an introduction to the analysis section, highlighting the importance of examining the competitive advantages of the two chosen port locations.

### **2. Porter's Diamond Model**

#### **A. Country level**

- Infrastructure
  - + Assess the infrastructure conditions in both locations
  - + How these factors contribute to the competitive advantage of each port.

#### **Example:**

At the country level, infrastructure significantly influences the maritime industry's competitiveness ([Munim & Schramm 2018](#)). Singapore is noted for its well-developed infrastructure, particularly in its maritime port (Mindur 2020). Importantly, Singapore has plans to invest a substantial \$14 billion in expanding port infrastructure through the Tuas project ([Bloomberg 2022](#)).

In contrast, transportation routes around Cat Lai port often suffer from inadequacies and traffic congestion.

- Political stability
  - + Compare the political stability of the two chosen locations.

- + Discuss any political factors that may impact the competitive advantage of the ports

**Example:**

In terms of internalization, as measured by foreign direct investment (FDI), Singapore stands out with an impressive attraction of \$35.2 billion in recent years (Trading Economics 2023). This substantial FDI flow underscores Singapore's advantage in modernizing infrastructure and technology.

Vietnam, while attracting FDIs, lags behind with only \$13.1 billion (Trading Economics 2023). These figures emphasize Singapore's competitive edge over Vietnam's Cat Lai port. Singapore's historical commitment to open trade, low trade barriers, and active participation in free trade agreements further solidify its appeal to businesses and shipping lines (Tan [2007](#)).

## **B. Industry level**

- Factor condition
  - + Provide an overview of the infrastructure and labor force in both locations.
  - + Assess the quality and availability of labor, skills, and infrastructure.

**Example:**

Moving to the industry level, competitive advantages can be assessed using the Porter's diamond framework ([Hanafi et al. 2017](#)). Within factor conditions, Singapore stands out with its highly skilled workforce, ranking second in the Global Talent Competitiveness Index in 2021. The quality of the maritime labor force in Singapore is ensured through rigorous training programs, a stark contrast to Cat Lai port, which currently faces labor shortages, aggravated by the global pandemic ([Minh 2021](#)).

Technology plays a pivotal role in the maritime industry's success ([Gordon et al. 2005](#)). Singapore leverages advanced information technologies, including the Computer Integrated Terminal Operations System (CITOS) and TradeNet, for efficient trade management. The automation of several terminals further enhances the port's efficiency ([MPA 2023](#)). Conversely, Cat Lai port grapples with challenges due to

the absence of advanced physical technology and software applications.

Both ports benefit from favorable demand conditions, driven by geographic advantages and active trade activities ([Mindur 2020](#)). Singapore's high home demand for trading activities is attributed to its strategic location and limited natural resources. The ongoing expansion of globalization and international trade have accelerated innovation and development in Singapore's port. Meanwhile, Cat Lai port, strategically positioned near the Strait of Malacca, capitalizes on its location.

- Supporting industries
  - + Important industries that are directly related to trade
  - + Analyze the development and growth of these industries in each location and their impact on the ports.

### **Example:**

The logistics sector, closely tied to the maritime industry, significantly influences performance ([Nam & Song 2011](#)). Singapore's logistics sector represents 8% of its GDP and ranks 7th in the Logistics Performance Index ([OECD 2021](#)). The presence of numerous renowned logistics firms further enhances Singapore's standing ([Shao et al. 2023](#)). Conversely, Vietnam's logistics sector, while experiencing recent growth, grapples with infrastructure and managerial challenges ([Thong 2022](#)).

In terms of firm strategy and structure, both Singapore and Cat Lai ports exhibit a commitment to infrastructure and technological advancements ([Turner 2019](#)). Singapore, spurred by regional competition, strives to maintain its position as a leading trade hub ([Nguyen and Woo 2022](#)).

## **C. Firm-level**

- Technological advancement
  - + Evaluate the technological advancement of firms operating in each port.
  - + Level of automation, digitalization, and innovation in port operations.
  - + Explore any legislative or sustainability practices that provide competitive advantages.

### Example:

Technology plays a pivotal role in the maritime industry's success ([Gordon et al. 2005](#)). Singapore leverages advanced information technologies, including the Computer Integrated Terminal Operations System (CITOS) and TradeNet, for efficient trade management. The automation of several terminals further enhances the port's efficiency ([MPA 2023](#)). Conversely, Cat Lai port grapples with challenges due to the absence of advanced physical technology and software applications.

- Government assistance or Investment
  - + Examine government investments and support mechanisms
  - + Financial incentives, subsidies, or policies
  - + Compare the effectiveness of these measures

### Example:

Government support is evident in both countries ([Agarwala 2021](#)). Singapore's government implements policies to bolster its port, while Vietnam's government encourages growth in the maritime industry.

## VI. Comparative Advantage

**Hint:** Comparative advantage relates to how good the country is at a particular task compared to another, while competitive advantage concerns being better than others in a specific field or area

Comparative advantage

- Definition of comparative advantage
- Point out main factors that affect the two ports
- + Economic specialization
  - How economic specialization plays a vital role in a port's comparative advantage.
  - Explain how ports often focus on specific industries or cargo types.

### Example:

Port of Shanghai: Shanghai excels in handling a diverse range of goods, particularly high-tech and value-added products. Its economic specialization aligns with the global demand for sophisticated manufactured goods, giving it a competitive edge.



Cat Lai Port: Specializing in labor-intensive manufacturing, Cat Lai Port caters to industries seeking cost-effective production.

=> While economically significant, its specialization is more narrowly focused compared to Shanghai.

- + Geographical location
- Geographical location in shaping a port's competitiveness.

### **Example:**

Geographical Location:

Port of Shanghai: Shanghai's central location at the Yangtze River Delta provides unparalleled access to both domestic and international markets. Its proximity to major Chinese manufacturing centers and global shipping routes establishes a superior geographical advantage.

Cat Lai Port: While strategically positioned in Southern Vietnam, Cat Lai Port's geographical advantage is more regionally focused.

=> Shanghai, with its broader connectivity, gains the upper hand in the geographical location dimension.

- + Infrastructure and connections
- Impact of infrastructure and transportation connections on a port's efficiency and competitiveness.
- How do they enhance a port's ability to attract cargo and shipping lines.

### **Example:**

Port of Shanghai: Boasting advanced infrastructure, automated systems, and a well-established logistics network, the Port of Shanghai stands as a global benchmark. Its scale and technological prowess give it a definitive advantage in infrastructure and connectivity.

Cat Lai Port: Despite ongoing improvements, Cat Lai Port's infrastructure is still developing in comparison.

=> Shanghai's superior infrastructure, including high-tech facilities and intermodal connectivity, positions it with a clear advantage.

## **VII. Challenges and recommendation**

- Challenges

Issues of each of the 2 chosen location

- + Clearly outline the difficulties, obstacles, or shortcomings unique to each port.

### **Example:**

Port A: Port A faces congestion issues during peak seasons, leading to delays in cargo handling and vessel berthing. Additionally, the lack of sufficient cold storage facilities hampers its ability to handle perishable goods effectively.

Port B: Port B struggles with outdated infrastructure, resulting in slower cargo transfer times and increased maintenance costs. Furthermore, environmental regulations in its vicinity impose strict emissions standards, posing compliance challenges.

Causes

- + Underlying causes or factors contributing to the identified challenges.
- + Explore whether these issues are linked to geographical, infrastructural, operational, or regulatory aspects.

### **Example**

Port A: The congestion issue is primarily due to a surge in container traffic and inadequate expansion of terminal facilities to accommodate larger vessels. The absence of cold storage facilities is attributed to limited investment in specialized infrastructure.

Port B: Outdated infrastructure is a consequence of historical underinvestment and deferred maintenance. Compliance challenges arise from stringent local environmental regulations aimed at reducing air pollution.

- Recommendations

- + Offering overarching recommendations for both port locations.

### **Example:**

Port A: To address congestion, Port A should invest in expanding its terminal facilities, optimize berthing schedules, and implement advanced cargo tracking systems. To overcome the cold storage challenge, it is advisable to collaborate with private investors or seek government incentives for infrastructure development.

Port B: Port B can benefit from a phased modernization plan, focusing on upgrading key infrastructure components. Additionally, engaging in proactive dialogue with regulatory

authorities to explore emission reduction technologies and incentives can help improve compliance.

### **Example:**

#### **Cat Lai Port:**

Congestion issues at Cat Lai Port negatively affect the import and export activities in the southern region. Although the port's maximum design capacity is 2.5 million TEUs, it currently handles 5.5 million TEUs of cargo annually, resulting in an efficiency rate of around 90%, exceeding the typical range of 70-80% ([MOIT 2021](#)). The port consistently operates near its full capacity, with cargo and container quantities frequently nearing the limit. Over the past five years, Cat Lai Port's cargo throughput has outpaced industrial development in the surrounding seven provinces and cities near Ho Chi Minh City ([USAID 2021](#)). This unexpected growth has led to congestion due to a disparity between traffic infrastructure capacity and the volume of vehicles ([Thu 2022](#)).

#### **Port of Singapore:**

The Port of Singapore faces a significant challenge in adapting to changing regulations prompted by environmental concerns ([Cullinane et al. 2006](#)). This includes rapidly evolving regulatory frameworks aimed at mitigating environmental impact, such as the mandate to use low-sulfur fuels to reduce emission. Furthermore, the increasing demand for cleaner fuel consumption necessitates greater investments in green technology and renewable energy resources by the port operators. On a macro scale, the Ukraine-Russia conflict has disrupted global trade flows and driven up shipping costs ([UNCTAD 2022b](#)), intensifying competition and negative repercussions for the Port of Singapore.

#### *Recommendations:*

#### **Cat Lai Port:**

To address the issue of traffic congestion in the Cat Lai Port area, the implementation of a "street turning" system, as suggested by [USAID \(2021\)](#), is advisable. This system aims to identify and allocate transport opportunities to trucks, enabling goods to be transported in both directions within a single shipping cycle. This approach allows businesses at Cat Lai Port to maximize truck utilization, reduce the number of trucks on the road, and minimize environmental impacts.

#### **Port of Singapore:**

In response to changing regulations, it is essential to align port activities with various regulatory frameworks, including customs requirements outlined in the Regulation of Imports

and Exports Act (RIEA), the Strategic Goods Control Act (SGCA), and subsidiary legislation ([Burns et al. 2010](#)). These regulatory frameworks should be regularly updated and synchronized with the global port network to ensure consistent and seamless logistics and customs clearance processes. Additionally, given the significance of the political economy in business, the port system should be prepared to navigate these challenges.

Addressing challenges stemming from external factors involves enhancing research and development efforts to develop new strategies and technologies. Specifically, establishing a research department focused on analyzing global trade patterns can aid in more accurate trend predictions. This, in turn, helps the Port of Singapore minimize the impact of macro events, such as the Ukraine-Russia conflict.

### **\*Bonus**

You can elaborate on the similarities in challenges and solutions needed for both of these ports for more meaningful conclusion

### **Example:**

In summary, the Port of Shanghai and Cat Lai Port share common challenges, including congestion, technological integration, environmental sustainability, infrastructure limitations, and connectivity challenges. Both ports require strategic solutions such as continual technological upgrades, robust infrastructure investments, and collaborative efforts with stakeholders to address these shared operational hurdles.

## **VIII. Conclusion**

- Summarize results
- + Recap of the most significant results and discoveries made
- + Highlight the key takeaways
  
- Similarities
- + Discuss any notable similarities or commonalities.
- + Identify shared strengths or challenges that are relevant to both ports.

### **Example:**

Upon a comprehensive analysis of the competitive and comparative advantages of the Port of Singapore and Cat Lai Port, the findings indicate that the Singapore port holds a clear competitive edge across all three levels, primarily owing to its robust factor conditions and a thriving logistics industry. In contrast, when it comes to the comparative advantage in

manufacturing electronics and technology products, Vietnam possesses a slight edge. Additionally, both ports must confront various operational challenges and should be adequately prepared to navigate adverse macroeconomic factors, such as the Ukraine-Russia conflict.

## **D/ TIPS & TRICKS**

- You may consider using a template available on Canva or Google Slides for the ease of design and customization. Refrain from crafting your own slide materials from scratch as it would take away your time for other parts.
- Keep Text Minimal: Focus on bullet points and concise descriptions.
- Use Visuals: Graphs, charts, and images can make your points more engaging.
- Stories or Quotes: Adding a short story or quote can make your slide more relatable.
- Consistent Design: Use a consistent color scheme and font style throughout.
- Choose a port that is easy to conduct research about.

## **E/ FOOD FOR HUNGRY THOUGHTS**

MAS (2023) International Connectivity, Monetary Authority of Singapore, accessed 20 August 2023. <<https://www.mas.gov.sg/development/why-singapore#:~:text=Singapore%20is%20located%20at%20the,markets%20of%20the%20partner%20countries.>>

Medina A (2022) How Singapore is Poised to Take Advantage of Industry 4.0, ASEAN Business News, <https://www.aseanbriefing.com/news/how-singapore-is-poised-to-take-advantage-of-industry-4-0/>, accessed 12 August 2023.

MOIT (2021) Bộ Công Thương kiến nghị một số giải pháp gỡ khó, khắc phục tình trạng ùn tắc hàng hóa tại cảng Cát Lái ..., <https://moit.gov.vn/tin-tuc/hoat-dong/bo-cong-thuong-kien-nghi-mot-so-giai-phap-go-kho-khac-phuc-tinh-trang-un-tac-hang-hoa-tai-cang-cat-lai.html>, accessed 18 August 2023.

MINDUR, M. (2020) Significance of the port of Singapore against the country's economic growth. *Zeszyty naukowe Politechniki Śląskiej*. [Online] 106 (106), 107–121.

Nelson, RK, Scarlett, AG, Gagnon, MM, Holman, AI, Reddy, CM, Sutton, PA and Grice, K, (2022) 'Characterizations and comparison of low sulfur fuel oils compliant with 2020 global sulfur cap regulation for international shipping', *Marine Pollution Bulletin*, 180, p.113791.

Nguyen P. & Woo S (2022) Port connectivity and competition among container ports in Southeast Asia based on Social Network Analysis and TOPSIS. *Maritime policy and management*. [Online] 49 (6), 779–796.