

## Investigating cross border logistics practices in emerging markets: the case of South-East Asia

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**Abstract:** With a total population of over 630 million inhabitants and an average yearly GDP growth rate of over 5%, South-East Asia (SEA) is among the most attractive emerging regions in which to conduct business. The economic progress of this area is primarily tied to the increasing diffusion of e-commerce since most of the population is young, living in urban areas and acquainted to the use of technology to buy products both within and across the borders. The attractiveness of SEA is further highlighted by the entrance of major e-commerce players, such as Chinese giants Alibaba and JD.com, whose presence has boosted e-commerce sales in the region. The online market growth has also increased the need for more efficient logistics processes. However, improving logistics performances is very challenging: SEA countries are very heterogeneous in terms of geographical features, population distribution and logistics infrastructure. For instance, some of them are archipelagos, therefore maritime transport is a relevant alternative, but it causes delays and congestions in the few available ports. Although infrastructure has improved over time, it is still inadequate to achieve better connectivity at both local and international levels. Given the presence of both opportunities and challenges when conducting business in SEA, the present study aims to explore the SEA logistics industry features in terms of infrastructure, costs, and available services. The study provides useful hints on suitable logistics strategies for international players interested in targeting the area. The research is conducted by empirically analysing and comparing, via interviews and secondary sources, eight in-depth cases of companies operating in SEA. This study applies the theoretical lenses of institutional theory and contingency theory. It enriches the cross border and e-commerce logistics literature, as SEA has received far less attention than larger and more mature markets in Asia-Pacific like China, Japan or Australia.

**Keywords:** Cross border e-commerce; logistics; South East Asia

### 1. Introduction

Much research in the past few years has started to point at emerging economies, such as Brazil, Russia, India, or South-East Asia (SEA), as the most attractive countries to conduct business with (Gnatzy & Moser, 2011; Wu & Pangarkar, 2006; Hirshinger et al., 2015). In this scenario, SEA is particularly interesting, given its total population of over 630 million inhabitants and an average yearly GDP growth rate of over 5% (much higher than developed countries). The SEA region consists of ten different countries whose economic progress is mainly tied to the increasing diffusion of e-commerce. Most of the population is young, living in urban areas and acquainted to the use of technology to buy products both within and across the borders. The attractiveness of the area is further highlighted by the entrance of major e-commerce players: back in 2017, Alibaba has acquired Lazada, the largest local e-commerce platform, and another Chinese giant, JD.com, has opened a local version of its website in Indonesia. Both moves have boosted e-commerce sales in the region. However, the online market growth has also increased the need for more efficient logistics processes. In order to operate in these markets successfully, efficient transportation and logistics systems are necessary (Czinkota & Ronkainen, 2005; Hirshinger et al., 2015). Improving logistics performances is very challenging: SEA countries are heterogeneous in terms of geographical features, population distribution and logistics infrastructure. For instance, some of them are archipelagos, therefore maritime transport is a relevant alternative, but it causes delays and congestions in the few

available ports. Although infrastructure has improved over time, it is still inadequate to achieve better connectivity at both local and international levels.

Given this challenging scenario, this study has the primary objective to investigate viable cross-border e-commerce logistics strategies that can be implemented in SEA. The paper is organised as follows: Section 2 presents the literature background and the Research Questions (RQs). Section 3 describes the methods applied in the study, Section 4 discusses results, and Section 5 concludes.

### 2. Literature background and research questions

Many authors recognise that the advent of e-commerce has profoundly affected logistics operations (Hensher et al., 2015; Hou, 2014; Giuffrida et al., 2017a). Efficient and effective logistics processes are needed to guarantee an adequate service level. Nonetheless, it can be challenging for firms to successfully manage logistics due to its high costs (most of all for last-mile delivery) and difficulties to negotiate with logistics operators (Kawa and Zdrenka, 2016; Gessner and Snodgrass, 2015). Additional problems arise in case cross-border transactions are involved. For instance, the length of the order cycle increases, mainly due to the higher distances, the customs clearance procedures and the regulations to be observed (Shuyan and Lisi, 2013). All these complexities pose further challenges to companies engaged in global transactions. One of the critical elements that could mitigate such complexities is the understanding of the specificities related to the destination market. Literature suggests in fact that the gradual acquisition, integration and use of

knowledge about foreign markets and operations helps reduce entry barriers and increases commitment to establish continued trade relations with those markets (Johanson and Vahlne, 1977).

The majority of available contributions state that there are significant divergencies in the logistics infrastructure of SEA countries. Transportation is problematic in most countries, except Singapore and Malaysia, while for some other countries (e.g. Brunei) customs issues are even more complicated than logistics (Lee and Das, 2018).

The high level of fragmentation characterising the countries of this economic region requires performing more tailored research. On one side, there are some SEA countries that, presenting more developed infrastructure or superior economic conditions, are possibly more attractive than others. On the other side, given that the most promising countries are identified, specific guidelines should be provided to help companies better address the uncertainties and complexities of targeting fast-changing areas like emerging markets.

However, most of the current studies seem to fail in providing this specific support to companies. Our research in this field finds that there are several papers focused on the management of (cross border) logistics in SEA (e.g. Hirshinger et al., 2015; Tongzon, 2007; Hoer & Kritchanchai, 2015). However, very few take into consideration the additional logistics needs brought by e-commerce driven transactions (e.g. attention to service level and returns management). When dealing with online transactions, most of the literature is indeed focused on China, which is seen as the dominant player in the cross border e-commerce sector (e.g. Giuffrida et al. 2019; Lun, 2017; Giuffrida et al., 2018), while other promising areas are neglected.

A knowledge gap should be filled in this regard, and we aim to address it through this study at least partially. More specifically, we plan to answer these Research Questions (RQs):

*RQ1: What are the most promising SEA countries for the establishment of a Cross Border E-Commerce (CBEC) strategy?*

*RQ2: What are the possible logistics solutions to serve these countries? What are the main drivers affecting their selection?*

The interest in investigating these RQs has its foundation in two theoretical approaches that are widely adopted in Supply Chain Management literature. More specifically, with regards to RQ1, institutional theory (Scott, 1994) suggests that institutional and systemic factors (e.g. rules, laws, culture), which are specific of each country, are the main responsible of companies' behaviours. As such, institutional elements directly shape companies' decisions and strategies, affecting their performances. Given that SEA countries have different features in their institutional settings, we want to look at possible influencing institutional factors to help determine those areas where conducting business is more favourable and promising.

Concerning RQ2, we refer to contingency theory suggesting that, given a common institutional context, companies can achieve the best performances when there

is a good fit between their specific structure or features and the environmental conditions (Woodward, 1965; Lawrence and Lorch, 1967). In this setting, companies should decide which strategy to implement to maximise the fit with the surrounding environment.

### 3. Methodology

The research methodology consists of two phases. In the first phase, a literature review, combined with secondary sources analysis, was conducted to identify the main institutional and context variables that can either affect the attractiveness of the countries (RQ1) or influence companies' logistics strategy selection (RQ2). This approach has led to the proposal of two classification matrices (reported in the following section). Matrix 1 helps categorise countries according to their attractiveness, while Matrix 2 helps classify available logistics strategies based on some specific drivers. In the second phase, a case study methodology was adopted to answer RQ2 more in detail. Cases are represented by exporting companies that operate via CBEC in one of the SEA countries. Based on the evidence provided by the cases, some general insights are derived for companies willing to target this area in the future.

For each case, qualitative interviews were adopted to investigate logistics issues. Interviews conducted by authors were semi-structured. They consisted of some predetermined close questions investigating:

- o **the characteristics of the company**, its adoption of CBEC strategies and its experience in SEA;
- o **the characteristics of the products** sold (e.g. product range, average value, demand level);
- o **the adopted logistics solution** to serve SEA countries.

There was also the opportunity to explore the answers deemed most interesting or collect additional data, useful for a better understanding of the phenomenon.

Due to the sensitive nature of the topic, confidentiality will be guaranteed to interviewees. Therefore, neither company nor individuals will be revealed. However, a synthesis of the main features of the retrieved cases is offered in the upcoming results section.

Additional interviews were also conducted with logistics service providers serving SEA countries to describe the available logistics solutions better.

### 4. Results

#### 4.1. RQ1: Most attractive SEA countries for CBEC development

Beyond the overall dimension of the countries in absolute terms (measured via the e-commerce turnover value), there can be additional indicators of attractiveness, measured in relative terms (e.g. combining different dimensions and ratios). These latter can be extremely interesting, given that member countries of SEA are very different in terms of economic wealth, infrastructures development and geographical features. All these elements are needed to detect countries that are more attractive than others to conduct online business with and that deserve being prioritised as possible trade partners.

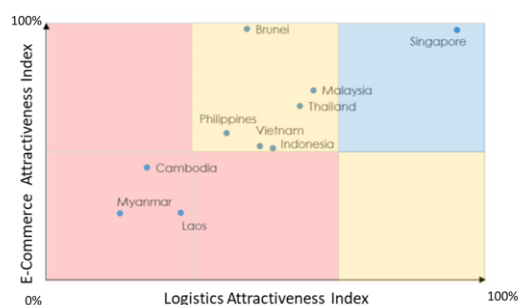
Following a literature and secondary sources review (e.g. Hirschinger et al., 2015; International Monetary Fund, 2020; United Nations, 2020; World Bank 2020) we have developed a matrix to classify countries and evaluate their overall attractiveness.

We have considered two classification axes, named as follows:

**E-Commerce Attractiveness Index**: this dimension is calculated by considering the average (equal weights) of the internet penetration level in the country and its per capita GDP (adjusted to allow for purchasing power parity). This index was calculated with data retrieved from the International Monetary Fund and Internet World Stats (2018) and acts as a proxy for the potential of e-commerce demand from each country. The higher its value, the higher the attractiveness of the country from an e-commerce perspective.

**Logistics Attractiveness Index**: this is given by the average (equal weights) of the Logistics Performance Index (World Bank, 2018) and the Urbanization Rate (United Nations, 2018) of each country. The Logistics Performance Index measures the quality of the logistics landscape in terms of many institutional factors such as available infrastructure, frequency, tracking and timeliness of shipments, existing free trade agreements. The Urbanization Rate indicates the distribution of inhabitants over cities and rural areas. As the overall value of The Logistics Attractiveness Index increases, serving the country becomes easier and more efficient.

These two drivers have allowed to map and cluster SEA countries into the six quadrants showed in Figure 1.



**Figure 1:** A matrix to measure SEA countries' attractiveness

Countries in the blue area present high values for both axes. The population of these countries has a high purchasing power, combined with intensive use of digital devices and the internet; logistics performances and the urbanisation rate are high, so it is possible to deliver goods with a satisfactory service level. For these reasons, countries of this quadrant (in this case consisting of Singapore only) deserve to be primarily served. Countries in the yellow area can be characterised by either high values of logistics index and relatively low scores on the e-commerce index or vice versa. As shown in Figure1, Brunei, Indonesia, Malaysia, Philippines, Thailand and Vietnam belong to the yellow area case, since they present interesting performances on the e-commerce side, while logistics seems to be more critical.

For this reason, companies willing to sell their products in these nations should analyse more in detail the sub-regions (within these countries) that could be more interesting to serve and plan their entry strategy accordingly. For instance, more than 80% of the Malaysian population lives in the peninsular part of the country (rather than in Borneo island), especially in the western area surrounding the capital city Kuala Lumpur. This section of the country is the one companies should consider primarily.

Last, countries in the red area present low scores on both drivers. Therefore, Cambodia, Laos, Myanmar should be not included with priority within companies' online internationalisation strategies. However, it is essential to monitor them constantly, since the extraordinary growth rate these countries are showing in recent years could make them attractive in the next decades.

Given the above considerations, the analysis of systemic indicators has allowed us to narrow down the focus of the analysis on the countries belonging to the most promising clusters, the blue and the yellow ones. These are considered to address RQ2.

#### 4.2. RQ2: Possible cross border logistics strategies and related selection drivers

Previous literature (e.g. Giuffrida et al. 2017b) has shown there are different viable logistics solutions in the CBEC sector:

- o First, the entire fulfilment process can be outsourced to a third-party courier, that manages the distribution from a warehouse in the country of origin;
- o Second, orders can be consolidated by an intermediary and then transported to the destination country, where distribution is managed through a hub with sorting function;
- o Third, the distribution facility in the destination country can be a warehouse with storage function. In the case of SEA region, cross border logistics services are often managed by the CBEC platform for an extra cost. For instance, Lazada, the leading e-commerce player in the region, optionally offers a Fulfilled by Lazada service, by taking care of all the logistics activities needed for products sold via its marketplace. Relying on extant literature (e.g. Hirschinger et al., 2015; Giuffrida et al., 2017b; Lee and Das, 2018) and interviews with five managers operating in the CBEC logistics field and the experiences of the analysed cases, a framework that classifies the available logistics solutions is proposed.

The framework considers the contextual factors that might affect the selection of each solution. The factors are embedded into two macro-dimensions used as axes of our framework.

**Company axis**: this includes some peculiarities of the company itself. Drivers forming this dimension are:

- o **Size of the company**: this indicator can be measured as either annual revenues or number of employees. The dimension of a company is often considered to affect the amount of available resources. The larger the company, the higher the probability to invest in logistics facilities
- o **Company experience**: this indicator refers to the level of knowledge and experience companies have concerning SEA countries and CBEC.

o **Strategic relevance of the market for the company:** if the SEA countries are considered a key market and the company aims at reaching high volumes of sales, it is easy to expect important investments, both in advertising and in the logistics network. In case a company is willing to explore the market, it is more probable that it will exploit, for instance, third-party services, such as Lazada’s solutions.

**Product axis:** it includes aspects related to the product being exported to the SEA countries through CBEC. This dimension has an impact on the transportation mode chosen by the company, as well as on the decision to use warehouses, transit points or direct delivery. The product dimension is driven by the following indicators:

o **Inventory carrying cost:** when the cost of keeping inventories increases, companies are led to opt for a solution without a warehouse in the destination market. The inventory carrying cost is positively related to two main drivers, i.e. product value density and obsolescence rate. As these two increase, the inventory carrying cost also increases, leading to opt for plane-based solutions and no local warehouse

o **Customisation of the product:** e-commerce allows final customers to purchase extremely customised products. The user can select through the website the preferred version of the product. Performing customisation activities in a facility located in the destination market would require additional investment. For this reason, a high degree of customisation brings to opt for direct delivery or transit point alternatives.

By combining the identified drivers, the following five logistics strategies are identified and ordered by increasing values of product complexity (product axis) and company commitment (company axis)

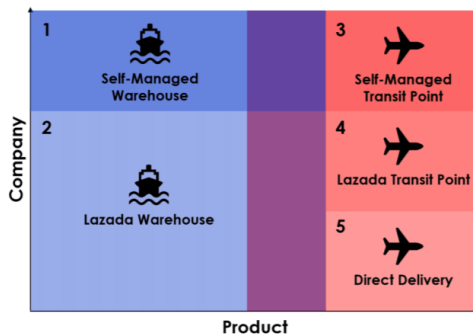


Figure 2. A matrix to classify available logistics alternatives.

Hereafter all quadrants of the matrix are described, also based on the information gathered through interviews. The analysed cases fitting each quadrant are also presented

**Quadrant 1: Ocean Freight Transportation and Self-Managed Warehouse**

This solution is the most suitable one for companies that score high on the company dimension and low on product dimension. Products sold by the company are characterised by a relatively low value density and do not present risks related to obsolescence. Due to the low value density and marginality of the product, it is essential to

choose the cheapest transportation mode. For this reason, ocean freight is the best option. In order to provide final consumers with an acceptable service level, it is necessary to keep stocks of products in the destination market. If the company already has a logistics network and local partnerships in the region, it is possible to exploit these partners also for the e-commerce channel; otherwise, it is necessary to start partnerships with local logistics providers. It is possible to work with one warehouse serving all the SEA countries or to opt for more warehouses, depending on the expected volumes and the desired service level. If the company decides to work with only one warehouse for the whole region, Singapore has been identified as the best location because it has the best logistics performances and is best positioned to optimise deliveries in the whole region. Lastly, it has a free-trade zone and a Free Trade Agreement with the EU.

**CASE A: Baby Care Company**

CASE A is an example of a company fitting quadrant one. Indeed, it is an Italian company in the baby care industry, producing clothes and shoes for children. This enterprise is classified as a large company, having CBEC experience in countries such as China and the USA. Moreover, the company works with local distributors for the traditional channels in the SEA countries. The company sells its products on several e-commerce local platforms; among these, the most important one is Lazada. Products sold by the company present a medium-low value density, with a lifecycle of a few years. E-commerce customers cannot customise their products. The company works on forecasts, shipping products through ocean freight, and uses its partners’ facilities for both offline and online sales.

**CASE B Coffee Company 1**

In the same quadrant, we also find CASE B, a large Italian company, active in the coffee industry, both for final consumers and the Hotellerie, Restaurant and Café (Ho.Re.Ca) channel. The company has been selling its products online for two years, intending to explore new markets and opportunities. Mainly, it is active in the USA, China, SEA and several European countries through e-commerce. The company reaches SEA countries online via Alibaba and Lazada platforms. The company’s coffee has a value density of approximately 10€/kg, it does not present criticalities related to the obsolescence, and it is not possible to customise the product or its packaging. This company exploits the same logistics network for both offline and online sales in SEA. The products are shipped through ocean freight transportation; then, they are handled, stored and delivered by local distributors working with the company.

**CASE C Beverages Company**

Case C is a large company selling bottled water and non-alcoholic beverages in the USA and China via CBEC. It also operates in SEA through both offline channels and CBEC. The value density of the products is extremely low, ranging from 0.38 €/u to 3.18 €/u. Products are not critically affected by obsolescence and cannot be customised. They are shipped by sea to a warehouse owned by the company’s distributors.

## **Quadrant 2: Ocean Freight Transportation and Lazada Warehouse**

If products have similar characteristics as Quadrant 1 (i.e. low value, low customisation needs) but companies are smaller and less experienced, the best option available for the exporter is working with Lazada through the Fulfilled by Lazada solution previously presented. In this case, the exporter ships products to a Lazada facility, located in Hong Kong. Then, Lazada takes care of distributing the product to its warehouses in all the SEA countries and manage last-mile delivery. This solution has probably the best service level among the five quadrants: Lazada owns warehouses in all the SEA countries, and its logistics network is hugely spread. Thus, customers can receive their products in a short time ranging between same-day delivery and 3-4 days.

### **CASE D: Shirts Company**

In this quadrant, it has been possible to identify a small Italian enterprise specialised in the production and sale of shirts of medium-low quality (the average price for a shirt may range between 25€ and 35€). The product has a certain degree of obsolescence and cannot be customised by final consumers. In the SEA countries, it is possible to purchase these shirts only through the online channel; thus, the enterprise does not have experience with traditional (offline) sales in the region. The strategy used in the SEA market can be defined as explorative. Currently, the company sells its products on Lazada's platform. Shirts are shipped through ocean freight to Lazada's warehouses, where they are stored until the customer order takes place.

## **Quadrant 3: Air Freight and Self-Managed Transit Point**

Quadrant 3 includes companies with characteristics that are similar to those in Quadrant 1: they are large enterprises aiming at reaching high volumes of sales in SEA countries. Differences between Quadrant 1 and Quadrant 3 refer to products' features. They are characterised by a high value density and could be affected by a critical obsolescence cost; thus, it is imperative to minimise the amount of stock in the logistics network. In some cases, final customers could also have the possibility to customise their products. Consequently, these types of products cannot be managed through a warehouse in the destination market. The constraint of the service level imposes to the exporting company to use airfreight as an international transportation mode. The impact of airfreight costs on the products' marginality should be negligible in these cases. However, volumes are such to allow aggregation of orders in the shipment from the origin country to SEA. For this reason, a transit point should be in the destination market. In case of multiple transit points, a two-level network with one transit point in Singapore (first level) and one in each served country (second level) could be evaluated. This choice mainly depends on the volumes of sales in different countries. This solution provides final customers with a service level between 7 and 10 days approximately.

### **CASE E: Shoe Company**

The enterprise classified in this quadrant is a medium-large company operating in the shoes' market. It already operates in the SEA countries through traditional channels, and it has experience of CBEC in USA and Japan. The price of a pair of shoes can be higher than 800€ in some cases. Thus, the product is characterised by a high value density. Obsolescence cost for such products is exceptionally high since new collections are launched with quarterly frequency. According to collected information, the final customer cannot customise the product. This company ships its shoes to SEA countries through airfreight transportation. A transit point located in Hong Kong is used for all the served nations in the area (Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam). The company works with international partners both for international transportation and for local shipment, as it happens for products sold via offline channels.

### **CASE F: Apparel Company**

This large company operates in the fashion industry. It has extensive experience in CBEC and operates in SEA both through online and offline channels. The value density of products is exceptionally high, as well as the obsolescence rate. The products can also be partially customised by final customers. The company aims to reach important volumes. The company exploits the logistics network of local partners both for offline and online sales. Mainly, products are shipped through the plane. When possible, aggregation of volumes is performed for the Italy-SEA trip, and goods are sorted in a transit point owned by the company's partners.

## **Quadrant 4: Airfreight Transportation and Lazada Transit Point**

Enterprises figuring in this quadrant present an intermediate situation for drivers used for the company axis of the matrix. Some examples include small-medium companies with previous experience in the SEA and pursuing an aggressive strategy; alternatively, it is possible to find large companies that aim at starting from scratch the business in these countries, thus pursuing an explorative strategy. Concerning the product axis, the situation is very similar to the one presented in Quadrant 3. Since the values of the drivers of the product are significantly high, keeping these products in stock is very costly. In some cases, customers could personalise their orders. These considerations allow us to conclude that a warehouse in the destination market is not the optimal solution for these products. Thus, the exploitation of Lazada's CBEC solution is considered as the most suitable one. Orders coming from the whole region can be aggregated in the international air freight transportation. Then, they are disaggregated in the transit point and delivered to the final customer. Lazada takes care of these activities, exploiting its spread logistics network. This solution allows providing the final customer with a slightly better service level than the solution presented in Quadrant 3. Customers could receive their products in 5 to 8 days, depending on the delivery location.

None of the available cases was found matching the strategy described in this quadrant

#### **Quadrant 5: Air Freight Transportation and Direct Delivery**

This last quadrant includes companies with a low score in the company axis and high values in the product one. Characteristics of the products are the same as those of Quadrants 3 and 4. Thus, it is difficult to suppose such products can be kept at stock in the destination market. Regarding company drivers, in this case, firms are quite small and often pursue a purely explorative strategy in SEA countries. Their financial situation does not allow them to invest in logistics facilities; moreover, the low degree of experience in such business context would make this a risky investment. It is possible to expect that volumes of sales through CBEC are extremely low.

For this reason, the single order must be shipped from the country of origin to the customer's residence via international logistics players, such as express couriers. This solution allows the final customers to receive their product within approximately one week since the order. In this case, handling activities are extremely reduced with respect to other solutions. Similarly to Quadrant 4, no investments in the logistics network are required by this option. However, variable costs related to the single customer order are the highest among the five quadrants. Indeed, the direct delivery model is the most expensive one, mainly because no aggregation of orders is performed by the company.

None of the available cases was found matching the strategy described in this quadrant.

#### **Violet Area: Management of Urgent Orders for ship-based fulfilment**

An additional performance driver in the e-commerce industry is related to service level, expressed in terms of “fast delivery”. While plane-based solutions can always guarantee reduced transit times, ship-based ones need to rely on advanced planning in order to satisfy demand properly. This means they are unable to cope with uncertainty or unexpected orders. This is why Figure 2 also includes a “violet area” dedicated to an additional “contingency strategy”, i.e. unexpected or urgent orders management. This area interests part of Quadrants 1 and 2, thus covering cases with any value in the company axis. Products drivers' values present some peculiarities: the stock-keeping cost is not significantly high, but value density is such that airfreight transportation costs would not completely erode products' marginality. Moreover, the product could present some customisation characteristics that the customer could be willing to pay a bit more to have fast delivery. While the typical strategy of companies falling into Quadrants 1 and 2 is ship-based and requires the presence of a local warehouse in SEA, urgent orders or unexpected ones can be managed through air transportation. This is a way to deal with unpredictability without losing potential customers' order. The product's value should be high enough to cover transportation costs.

#### **CASE G: Socks Company**

This is a small-medium Italian enterprise, specialised in the production and sale of medium-high quality and customisable socks and underwear. SEA customers can purchase these products only on Lazada's website. The company operates CBEC in China and the USA. Usually, products are kept in stock in the Lazada warehouses, located in the different SEA nations: they are shipped through ocean freight based on forecasts. Thus, this company can be classified as belonging to Quadrant 2. However, when an urgent or unexpected order takes place, the company ships its products through airfreight transportation, thus providing the final customer with an acceptable service level, despite planning criticalities.

#### **CASE H: Coffee Company 2**

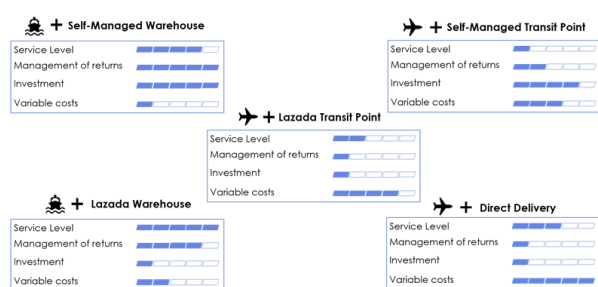
This is another company active in the coffee industry. Even in this case, it is active both in the Business to Consumer (B2C) and in the Ho.Re.Ca channels. This company is large but smaller than the previously mentioned Coffee Company 1, (i.e. registering three times lower revenues). The Ho.Re.Ca channel represents the primary source of revenues for the company, that started the B2C segment recently. Sales in the SEA countries take place both online and through traditional channels. Besides the SEA, the company sells via CBEC in the USA and China. SEA customers can find the company's coffee on the Lazada platform. Concerning the product, it occupies the high end of the market. In SEA, the company works with a local and trusted partner, taking care of all served channels. Typically, products are shipped from Italy to Hong Kong (where the partner's warehouse is located) through sea freight transportation. In some exceptional cases, the delivery to this warehouse takes place through airfreight transportation.

### **5. Conclusion**

Given the purpose of this paper, i.e. to identify viable CBEC logistics strategies in SEA and determine their driving factors, an empirical analysis has been conducted. Starting from the principles of institutional theory, postulating the importance of systemic, cultural and infrastructural factors in shaping companies' competitiveness, a classification matrix that determines the e-commerce and logistics attractiveness of the 10 SEA countries is offered. Possible available logistics solutions are described for the seven most attractive countries, and their suitability depending on different contextual variables is discussed.

In order to summarise the main highlights of this study, we propose an overall evaluation of each logistics solution considering four main features discussed in the descriptive section of results (i.e. transport, handling and inventory carrying costs, investments in logistics facilities, quality of service level, easiness to manage returns). As shown in Figure 3, the best service level is achievable by keeping inventory in the destination market. This choice also reduces criticalities related to the management of returns but increases investment needs. Considering the level of outsourcing of logistics activities, when these are managed by Lazada on behalf of the company, it is possible to

notice an increase of logistics costs (due to Lazada service fees), but also a reduction of the required investment.



**Figure 3.** Overall evaluation of the logistics solutions

Besides these findings, it should be acknowledged that the analysis relies on a limited number of cases mainly belonging to food and fashion industries. It was not possible to find additional contacts and fill all the quadrants identified in the matrix. Therefore, an enlargement of the observed sample is our main path for future research, together with continuous monitoring of the area, which is subject to fast changes and development. Despite this direction of improvement, the paper presents some interesting implications, both from an academic and a practical viewpoint. From a theoretical perspective, this study aims to enlarge the literature on CBEC logistics, which is currently limited and geographically focused mainly on China. At the same time, this study presents results built on empirical evidence that can be useful for producers and retailers interested in this field.

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