

International trade in travel of selected ASEAN nations from comparative advantage theory and value-added trade approach

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Abstract:

ASEAN nations are among few dynamic economies that experience impressive growth in international trade of travel even when the global economy is facing many shocks and negative changes. In recent years, travel is becoming the key sector and driver of economies thanks to its abundant natural and cultural resources. Nevertheless, comparative advantages for travel of certain nations are not creating adequate benefits to its potentials. The author argues that although some nations have a remarkable comparative advantage for travel development in the ASEAN region, their value added in international trade of travel is noticeably low compared to that of others for the last 5 years. This paper investigates the nature of international trade in travel of the selected ASEAN nations over the period 2014 - 2018 with an approach from the theory of comparative advantage and trade in value added by employing the Balassa methodology (using Revealed Comparative Advantage index) to measure comparative advantage in travel. The analysis indicates that different comparative composition of resources exploited for travel and tourism promotion result in different outcome value in international trade; thereby contributes to the evolvement of comparative advantage theory under current context of global trade in services.

Keywords: international trade, travel, comparative advantage, value added, ASEAN

Introduction

Overview

Trade in services is becoming more significant for economies since the global exports of intangible products in 2018 was valued at 5.8 trillion US\$ and accounted for 25 percent of the total export value and 7 percent of the global GDP (UNCTAD, 2019a). In 2018, in many economies such as the Caribbean and South Eastern Asia, internationally sold services

accounted for more than 10 percent of GDP. Among service sectors, travel is experiencing a continued expansion and becoming one of the largest and fastest-growing economic sectors worldwide for the last decade (Algieri et al, 2018).

Travel is among the dominant economic sectors gaining from globalization (OECD, 2019) and also plays an essential role in the economies which contributed 10.4 percent to the global GDP in 2018 (WEF, 2019). During 2013 - 2018, exports of travel expanded significantly on all continents, with the annual growth rate between 7 and 8 percent in 2018 (UNCTAD, 2019b). According to UNCTAD report, travel services, along with transport, dominates services exports of developing nations in 2018, which implied that developing economies relied more on travel and transport and less on other services than developed economies for their exports.

Although the dynamics of travel can be explained by international trade theories, there are not many such studies in reality (Webster et al, 2007). Overall, the theory of comparative advantages is one of the most important theories for explaining international specialization in goods and services, but applications to the analysis of travel have been quite scarce (Algieri et al, 2018). Considering the theory of international trade, natural and cultural resources are special advantage for the promotion of trade in travel and tourism; therefore, a nation with the potential to take those advantages should specialize and develop travel and tourism rather than producing and exporting goods or other services (Toit & Fourie, 2010).

This is true for the case of many ASEAN nations (Nguyễn, 2011). In 2018, while the Americas were scored 3.9, the Middle East and North Africa were 3.7 and the Sub-Saharan Africa was 3.1 in competitiveness in travel and tourism, the Asia-Pacific was scored 4.2 and among the highest competitiveness (WEF, 2019). According to WEF report (2019), ASEAN nations were ranked in top groups: Singapore #17, Malaysia #29, Thailand #31, Indonesia #40, Vietnam #63, Philippines #75, Lao PDR #97 and Cambodia #98.

Theoretical context: Comparative advantage in international trade

The main concept was proposed by David Ricardo in 1817. According to Ricardo, international trade would benefit participants even when one nation has higher production cost (less effective in production) compared to others for all products. In other words, a nation has comparative advantages when it is able to produce and export products with lower opportunity costs compared to other nations; hence, it should specialize in those products to increase global economic welfare. The value of this theory is when Ricardo pointed out that

all nations should trade and gain from trade, even when nations don't have absolute advantages in production. At the same time, this theory created a basis approached from opportunity costs for the specialization and utilization of a nation's resources. According to Algieri et al (2018), these advantages are never absent, as long as there are international differences in production's efficiency.

In 1930, Gottfried Haberler developed comparative advantages based on opportunity cost. He noted that a product with lower opportunity cost would gain comparative advantage, and a nation with advantage (absolute or comparative one) in production of a certain product compared to that of other nations could enter global market (Kemp & Okawa, 2012). In 1933, Bertil Ohlin and Eli Hecksher introduced H-O model and noted that a nation would specialize in production to export the products which intensively employ nation's available abundant factors, and would import those which employ nations' scarce factors. Decades after, Paul Samuelson expanded H-O model into H-O-S model (1954) and noted that the differences in prices of input factors among nations resulted in the rise of international trade, and by international trade that the gaps would be narrowed and lead to an equilibrium in prices of input factors on global market. In addition, Jaroslav Vanek also expanded into H-O-V model (1968) which stated that under market equilibrium of input factors and same level of technology in same industries across economies, a nation should specialize in production to export products that require intensive use of nation's abundant factors.

With respect to the evolution of comparative advantage theory, two views can be distinguished in the literature (Siggel, 2007): The first is that the sources of comparative advantages are confined to Ricardian and Heckscher-Ohli-type trade and are not related to other factors. The second is a more general interpretation of the principle which suggests that a nation has a competitive advantage in a product if its production costs in terms of equilibrium factor prices are lower than those of an international competitor, regardless of the sources of the cost advantage (such as land, natural resources, capital, technology, innovations, transportation, insurance...).

However, existing studies generally examined comparative advantages in travel and tourism focusing only on small or developing nations and most of them consist in a descriptive analysis. For the first branch, travel specialization based on revealed comparative advantage indices (Webster et al, 2007). For the second but scant branch, studies examine the factors affecting comparative advantages in travel and their nature (Zhang & Jensen, 2007). Also for another branch, researchers consider a strategic management viewpoint and

investigate how firms or nations achieve and sustain those advantages (Teece et al, 1997). Besides, there are eclectic views in study that contribute to the branches of literature review (Algieri et al, 2018).

Significance and aim

The study was based on *value-added trade approach* to the *theory of comparative advantage* for travel industry of selected ASEAN nations, namely Indonesia, Malaysia, Singapore, Thailand and Vietnam, with a 5-year statistical data (2014 - 2018) collected from International Trade Center database. By measuring the comparative advantage for international trade in travel of these nations, this paper pointed out some gaps in the application of comparative advantage theory in the case of international trade in a service industry (travel).

Understanding the connotation of comparative advantage for value-added trade in travel of nations is of key importance for policy-makers since it would allow them to have a more comprehensive overview of the sources for travel promotion and design better strategies to enhance those activities exhibiting such potential and improve performance. From a managerial perspective, it would permit to monitor travel industry, identify emerging issues for operating businesses as well as track relative performances against key competitors. Additionally, this study contributed to the existing literature in different ways.

Methodology

Theoretical model

There are three models to approach a nation's products from comparative advantage theory, namely comparative advantage based on production cost advantage, based on export market share and based on internal resources (Võ & Đỗ, 2016). According to these approaches, a nation will specialize in production and export of the product which has less ineffectiveness, and/or larger market share, and/or real social cost for production, compared to its trade partners. This paper approached comparative advantage in travel of selected ASEAN nations from the export market share by using *Revealed Comparative Advantage index* (RCA index in short) or also called Balassa Index (Balassa & Noland, 1989). This index is a traditional measure of comparative advantages using export flows and seems to be preferable to the traditional index both on theoretical grounds and on empirical ones (Algieri et al, 2018).

Comparative advantage indicated by RCA index is measured by a nation's consumption

result (competitiveness) on the global market compared to the world's, and is calculated by the below formula:

$$RCAX_{ik} = \frac{X_{ik}/X_i}{X_{wk}/X_w}$$

in which:

$RCAX_{ik}$: Revealed comparative advantage index in export of nation i for product k

X_{ik} : Export volume for product k of nation i

X_i : Total export volume of nation i

X_{wk} : Export volume for product k of the world

X_w : Total export volume of the world

If the export proportion of product k for nation i is greater than its proportion in total global export ($RCA_{ik} > 1$), nation i is considered to have comparative advantage for product k; and vice versa ($RCA_{ik} < 1$ implies that nation i is considered to have comparative disadvantage for product k). The higher the value of RCA is, the better the comparative advantage that nation i has. It is also noticed that generally, this study of comparative advantage should be considered from both supply and demand sides of the market, despite the fact that this calculation is still employed widely in research (Zhang & Jensen, 2007).

Data collection and process

The author employed secondary data selected and extracted from trustworthy databases of International Trade Center (ITC). Collected data was about total value-added export and value-added trade balance in travel of above-mentioned ASEAN nations and of global economy during 2014 - 2018 for calculation of the RCA index, as well as competitiveness index for examination of natural and cultural resources for travel and tourism promotion of selected nations.

Findings

RCA index in travel of selected ASEAN nations

Based on the data extracted from ITC database, the RCA indexes of the selected ASEAN nations were calculated as follow (Table 1).

Table 1. RCA indexes of the selected ASEAN nations, 2014 - 2018

Nations	2014	2015	2016	2017	2018
Singapore	0.656	0.588	0.653	0.629	0.614
Malaysia	1.583	1.336	1.371	1.260	1.188
Thailand	2.633	2.931	2.958	3.180	3.364
Indonesia	0.995	1.109	1.139	1.177	1.207
Vietnam	0.889	0.754	0.767	0.681	0.625

Source: Calculated by author, 2019

It can be seen for the 5-year period, Thailand, Malaysia and Indonesia were the three nations having comparative advantages in travel ($RCA > 1$ according to the connotation of the theory). More specifically, Thailand had the highest RCA with an upward tendency, followed by Malaysia yet with a downward trend, while Indonesia had a stable increase. On the contrary, Singapore and Vietnam didn't have comparative advantages in travel ($RCA < 1$) and both experienced decrease (Figure 1).

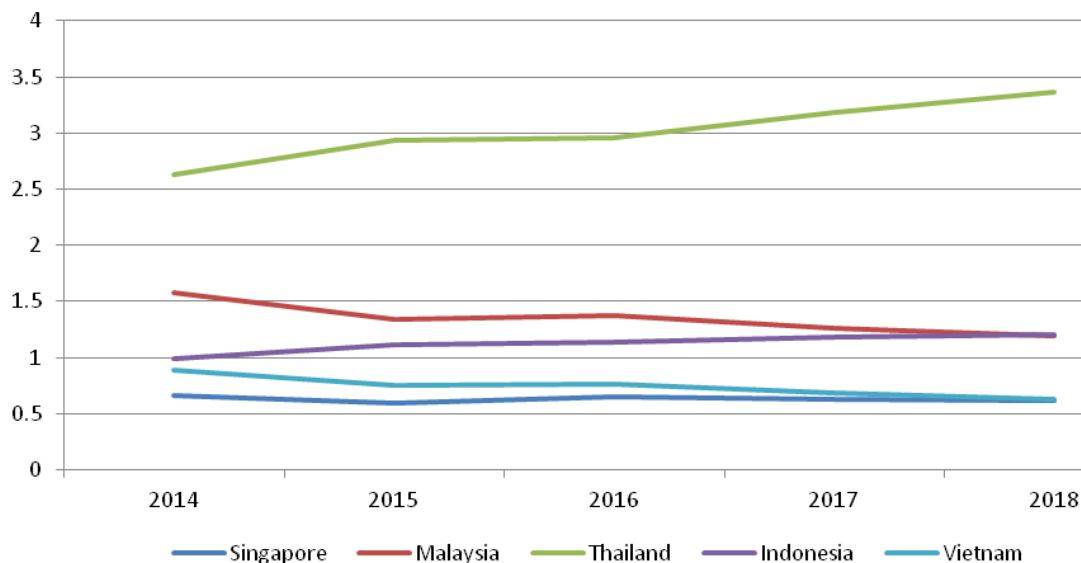


Figure 1. RCA index changes of the selected ASEAN nations, 2014 - 2018

Source: Calculated by author, 2019

Linking this with the status of trade volume in travel of the above nations, it can be seen that except for Singapore, all four nations remained trade surplus in travel for 5 years continuously. Especially, Thailand had a remarkably high surplus in trade of travel compared to others, followed by Malaysia, Indonesia and Vietnam with a stable amount of trade surplus.

For Singapore, the value of trade deficit in travel tended to decrease (Figure 2).

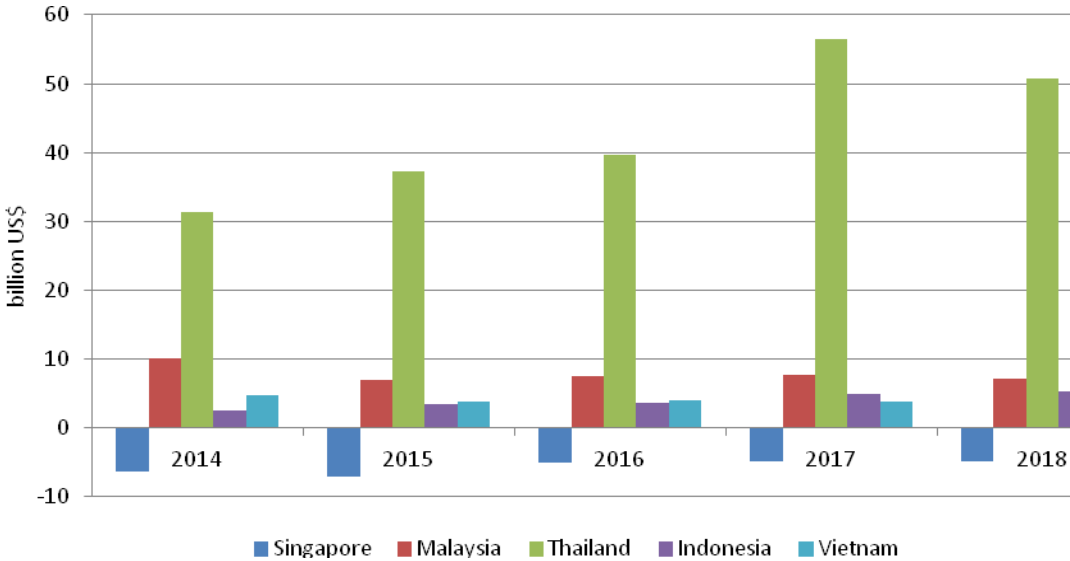


Figure 2. Value-added trade balance in travel of the selected ASEAN nations, 2014 - 2018

Source: ITC, 2019

In 2018, total export volume in travel of Thailand reached 63.1 billion US\$, which was three times higher than Malaysia (19.1 billion US\$) and Singapore (20.5 billion US\$), four times higher than Indonesia (14.1 billion US\$) and 6 times higher than Vietnam (10.3 billion US\$). Meanwhile, total import volume in travel of Singapore was the highest (15.3 billion US\$), followed by Thailand (12.5 billion US\$), Malaysia (11.9 billion US\$), Indonesia (8.8 billion US\$) and Vietnam (5.4 billion US\$) (Figure 3).

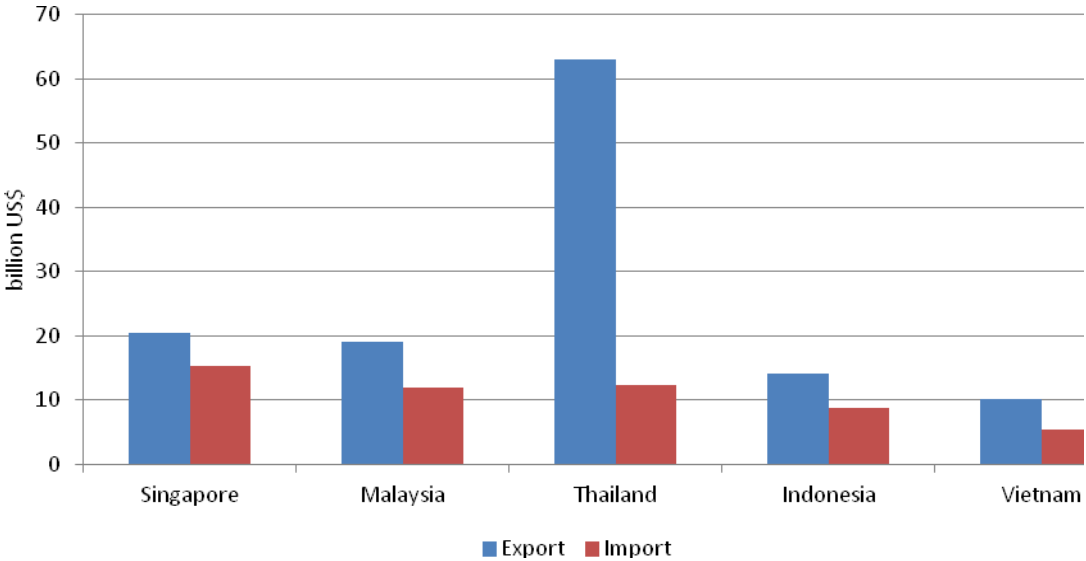


Figure 3. Value-added trade volumes in travel of the selected ASEAN nations, 2014 - 2018

Source: ITC, 2019

The import/export ratios of respective nations in 2018 were: Singapore 0.748, Malaysia 0.627, Indonesia 0.622, Vietnam 0.525 and Thailand 0.196 (calculated by author, 2019). It can be seen that, Singapore had both inbound and outbound travel developed, followed by Malaysia and Indonesia. Vietnam had a balance between inflow and outflow of tourists. Meanwhile, Thailand developed inbound travel rather than outbound one.

Competitiveness index in travel of selected ASEAN nations

According to WEF report, Singapore, Malaysia, Thailand, Indonesia and Vietnam were in the first-half group of the overall 2019 rankings in the Asia-Pacific and ASEAN region (Table 2).

Table 2. Overall travel and tourism competitiveness index 2019 of the ranked ASEAN nations

Economies	2019 score	2019 ranking	Difference from benchmark average	
			Regional (%)	Global (%)
Singapore	4.8	17	14.4	23.7
Malaysia	4.5	29	8.5	17.3
Thailand	4.5	31	8.1	16.9
Indonesia	4.3	40	2.6	11.0
Vietnam	3.9	63	-5.9	1.7
Brunei Darussalam	3.8	72	-9.1	-1.7
Philippines	3.8	75	-9.8	-2.5
Lao PDR	3.4	97	-17.9	-11.2
Cambodia	3.4	98	-18.4	-11.8

Source: WEF, 2019

The overall competitiveness index is composed of the following sub-indexes (Figure 4):

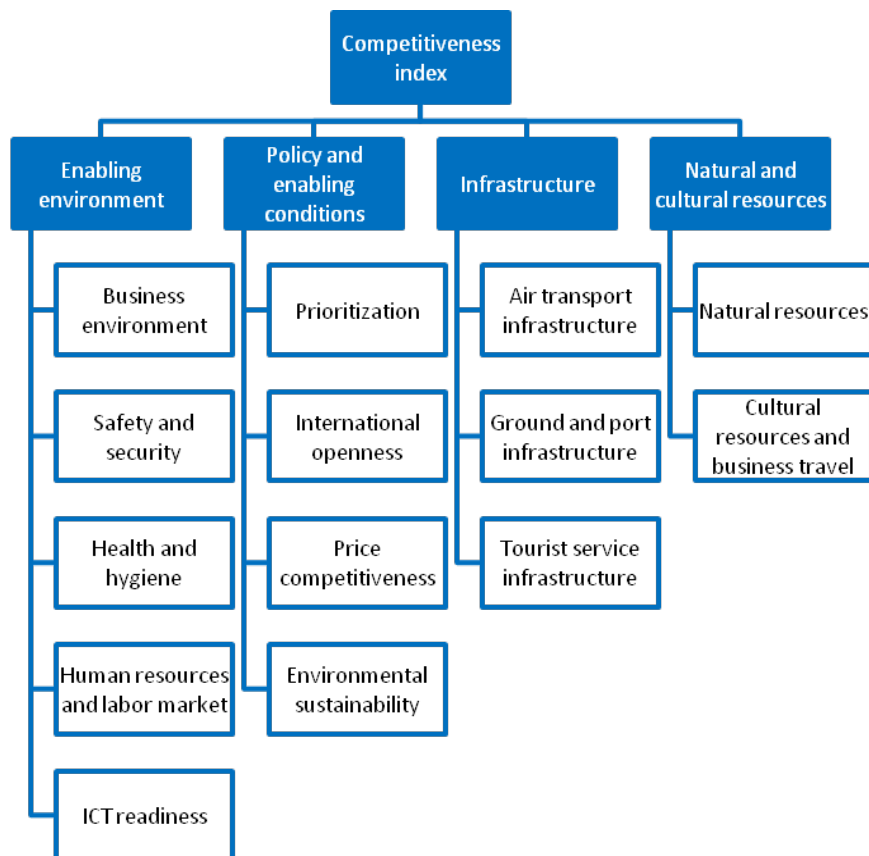


Figure 4. The travel and tourism competitiveness index 2019 framework

Source: WEF, 2019

Based on the above framework, the scores of selected ASEAN nations by sub-indexes were as follow (Table 3):

Table 3. Scores of travel and tourism competitiveness sub-indexes in 2019 of the selected ASEAN nations

Sub-indexes	Scores of (over 7.0)				
	Singapore	Malaysia	Thailand	Indonesia	Vietnam
Business environment	6.0	5.5	4.9	4.7	4.4
Safety and security	6.4	5.9	4.8	5.4	5.6
Health and hygiene	5.6	5.3	5.0	4.5	5.0
Human resources and labor market	5.6	5.4	5.1	4.9	4.8
ICT readiness	6.1	5.4	5.2	4.7	4.3

Sub-indexes	Scores of (over 7.0)				
	Singapore	Malaysia	Thailand	Indonesia	Vietnam
Prioritization	6.1	4.8	5.2	5.9	4.1
International openness	4.8	4.5	3.9	4.3	3.7
Price competitiveness	5.0	6.3	5.8	6.2	5.9
Environmental sustainability	4.3	4.0	3.6	3.5	3.8
Air transport infrastructure	5.5	4.6	4.6	3.9	3.4
Ground and port infrastructure	6.4	4.5	3.3	3.3	3.0
Tourist service infrastructure	5.1	4.5	5.9	3.1	2.8
Natural resources	2.2	3.8	4.8	4.5	3.8
Cultural resources and business travel	2.5	2.6	2.6	3.2	2.9

Source: WEF, 2019

With the above scores, the rankings of selected ASEAN nations in 2019 for sub-indexes were as follow (Table 4):

Table 4. Rankings for travel and tourism competitiveness sub-indexes in 2019 of the selected ASEAN nations

Sub-indexes	Rankings of				
	Singapore	Malaysia	Thailand	Indonesia	Vietnam
Enabling environment	7	34	63	72	73
Policy and enabling conditions	2	11	42	4	79
Infrastructure	3	35	32	71	87

Sub-indexes	Rankings of				
	Singapore	Malaysia	Thailand	Indonesia	Vietnam
Natural and cultural resources	66	31	21	18	26
Total ranking	17	29	31	40	63

Source: WEF, 2019

Discussion

Trade balance in travel of a nation includes export and import values; in which: Export of travel is measured by expenses of international tourists within that nation's boundaries and import of travel is by expenses of that nation's tourists in abroad. Therefore, for nations having trade surplus in travel (Malaysia, Thailand, Indonesia and Vietnam), it implies that the inbound travel's value added through trade of goods and services is higher than the outbound travel's. For the case of Singapore, it can be explained that Singapore's citizens spend more for travel abroad than foreign tourists in Singapore. In term of value-added trade, Singapore still experienced higher value of export in travel than Malaysia, Indonesia and Vietnam since both inbound and outbound travel developed strongly.

As resources are essential for economic development, they are also advantage for travel and tourism promotion, as well as captures the principal "reasons to travel" of tourists (WEF, 2019). It is noticed that Singapore didn't have favorable natural and cultural resources for travel and tourism promotion, meanwhile Indonesia, Thailand and Vietnam were highly appreciated with abundant and unique resources that attracted tourists. However, Singapore's overall competitiveness in 2019 was still ranked higher than others. In this case, it can be seen that travel and tourism's competitiveness (or tourists' motivation to travel) didn't have to rely on natural and cultural resources, which are considered to be comparative advantages for international trade in travel (Nguyễn, 2011). Nevertheless, Singapore had a high ranking in others rather than natural and cultural resources and this seems to be the main reasons for its' high competitiveness index (Figure 5).

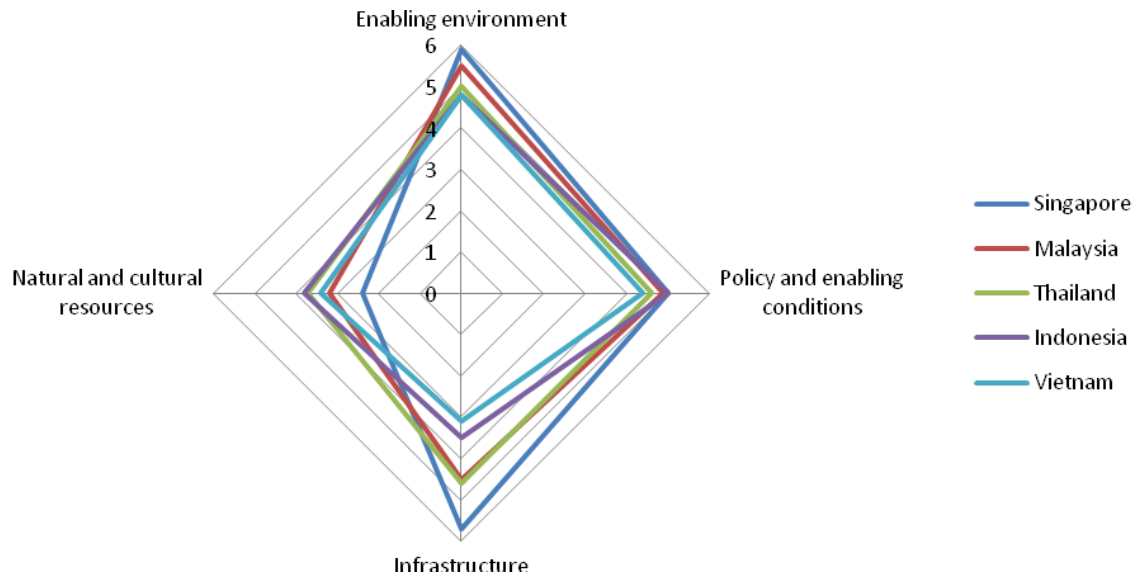


Figure 5. Scores of travel and tourism competitiveness sub-indexes in 2019 of the selected ASEAN nations

Source: WEF, 2019

In cases of Malaysia, Thailand and Indonesia, all nations had comparative advantages according to RCA index calculation during 2014 - 2018. Those nations experienced high value-added trade volume in travel. However, while Thailand and Indonesia had increasing RCA indexes through years, Malaysia's RCA was decreasing (Figure 1). This implies that Malaysia is losing its comparative advantages in travel. Despite that, Malaysia still recorded higher value-added trade in travel than Indonesia due to higher competitiveness in enabling environment and infrastructure (Table 4). Meanwhile, Indonesia had higher competitiveness in natural and cultural resources compared to Malaysia (Table 3). For the case of Thailand, it is noticeable that Thailand didn't have enabling environment, policy and enabling conditions or infrastructure, its value-added export volume in travel was significantly high, thanks to its natural resources and tourist service infrastructure (Table 3). This is true in reality, since Thailand (Rodyu et al, 2018) and Malaysia (Ehsan et al, 2016) both have advantages in travel and tourism development due to its natural resources.

In cases of Singapore and Vietnam, both nations had comparative disadvantages according to RCA index calculation during 2014 - 2018. Compared to Singapore, Vietnam had more competitive natural and cultural resources (3/0 destinations with UNESCO natural World Heritage sites, 1.313/453 known species of animals, 6.5/5.8 percent of nationally protected areas, 47/34 over 100 for demand on natural tourism and 5.0/3.8 in attraction of

national resources (WEF, 2019). Theoretically in term of “reasons to travel”, Vietnam was more attractive than Singapore to tourists. However, total value-added trade volume in travel of Vietnam was lower than that of Singapore (Figure 3) and Singapore was more competitive than Vietnam in overall (Table 2). Noticeably, Singapore’s RCA was lower but increasing while Vietnam’s RCA was decreasing, resulting in Singapore catching up in comparative advantages for travel with Vietnam. Not only experiencing an increase in RCA value, Singapore had higher competitiveness index compared to Vietnam; especially in environment, policy and infrastructure for travel and tourism development (Table 4). It can be concluded that institutional factors rather than comparative advantages (natural and cultural resources) did create larger influence on the improvement of trade volume, in the case of Singapore. Although Vietnam had more unique and multiform resources (naturally and culturally) to attract tourists, those comparative advantages could not be enough to maintain international trade for long-run.

For the case of Vietnam, this nation experienced trade surplus in travel continuously from 2014 to 2018 with value-added surplus around 3.75 - 4.88 billion US\$ (according to Vietnam’s General Statistic Office). Although Vietnam had highest RCA value in travel (Nguyễn, 2004) thanks to comparative advantages in natural and cultural resources (Nguyễn, 2011), Vietnam’s trade in travel seemed to be not sustainable (Nguyễn, 2011). It is noted that identifying comparative advantages to promote international trade in travel is necessary, yet those advantages of Vietnam are not “dynamic” - in other words, are low-level advantages which cannot be regenerate and can disappear (Nguyễn, 2011). This resulted in the low level of value-added trade volume in travel despite higher competitiveness in comparative advantages (and higher RCA value). The changes in RCA value of Vietnam during 2014 - 2018 implied that Vietnam’s comparative advantages were turning into disadvantages. Although there are explanations for this situation (for example, trade volume of goods increased significantly with higher growth rates compared to that of service sectors in general...), it should be cautious that value-added trade in travel of Vietnam is very modest compared to neighboring nations in ASEAN, despite the unique and abundant resources for travel promotion.

Conclusion

This study has investigated the international trade in travel of the selected ASEAN

nations, namely: Singapore, Malaysia, Thailand, Indonesia and Vietnam during 2014 - 2018 with an approach from the theory of comparative advantage and value-added trade. To this purpose, the Revealed Comparative Advantage indexes of the selected nations were calculated on data collected from International Trade Center for the above period, using formula proposed by Bela Balassa. Also, the travel and tourism competitiveness indexes of those nations reported by WEF were examined to make comparison among relevant cases.

The results suggest that some certain nations (Malaysia, Thailand and Vietnam) had international trade in travel driven by comparative advantages (natural and cultural resources), while others (Singapore and Indonesia) had it driven by institutional factors rather than comparative advantages. Despite the fact that different nations have different strategies and measures, orientation and objectives for travel development (and trade promotion as well), it couldn't be deny that those nations were implementing policies and tools very effectively to promote national travel particularly and trade in services generally. This paper also argues that despite of having remarkable comparative advantage for international trade in travel, some nations still remain lower level of value added in trade activities than those experiencing comparative disadvantages. This outcome is different from the nature and connotations of the comparative advantage theory, proving that indeed nations with comparative advantages in trade of travel could result in higher level of value added through trade (meaning to benefit more from trade in disadvantageous sectors). The reason here lies in the institutional factors (including policy, environment and infrastructure) which are absent from the original theory of comparative advantage.

In conclusion, this study once again emphasize the value of comparative advantage theory in explaining trade in certain cases, at the same time, highlights the gap between theory and reality while approaching from value-added trade in other cases. This could help understanding and explaining different patterns of international trade in the current global economy. It is very important for policy makers given that competitiveness and value added in trade of travel for nations also depend on institution rather than resources. By adopting appropriate policies, strategies and tools, nations could overcome disadvantages and benefit from international trade in different ways.

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