

"Economic Developments in the Sub-regional Growth Zones in ASEAN: A Case Study of SIJORI-Growth Triangle"

Dr. Meena Singh

Associate Professor, Department of Commerce, Motilal Nehru College (University of Delhi), New Delhi, India

Abstract - The Asia-Pacific region has emerged as a very vibrant region globally in modern times. This region has been making sincere attempts at enhancing regional economic cooperation and integration. For achieving this, it has always remained ahead in setting up some sub-regional initiatives, which came up more prominently in the Southeast Asian and the East Asian regions. Several trans-border sub-regional growth initiatives were launched in these regions, and they were popularly called the 'Growth Triangles.' Amongst these, the Singapore-Johor-Riau Growth Triangle or the 'SIJORI-Growth triangle' is ASEAN's first sub-regional growth zone linking Singapore with the southern Malaysian state of Johor and the Indonesian provinces of Riau, when it was set up initially. This sub-regional growth initiative came up in 1989, and later, in 1994, it was renamed the Indonesia-Malaysia-Singapore Growth Triangle (IMS-GT).

This Growth Triangle has been cited as a very appropriate example of the so-called 'borderless' economy. It is recognized as one of the most successful classic cases of sub-regional economic cooperation in ASEAN. This growth initiative has portrayed itself as an example of a mutually beneficial cooperative arrangement for enhancing growth amongst all its member participants. The present article throws light on setting up the IMS-GT, its historical background and the driving factors that led to its formation. The article looks thoroughly into various economic developments across the SIJORI-GT during its journey after 1989.

Keywords: SIJORI-Growth Triangle, IMS-Growth Triangle, Regional and Sub-regional Cooperation, Economic Development

I. Introduction

The emergence of the Asia-Pacific region as an important region globally has enhanced its efforts to promote regional cooperation and integration through its various regional and sub-regional initiatives. The latter could be seen prominently in East and South East Asia, which witnessed the launching of several cross-border sub-regional growth initiatives during the early 1990s, under the motto of 'Growth Triangles.' These sub-regional growth zones were instrumental in strengthening its trade and investment linkages and growing regional integration amongst the Southeast Asian economies for the ASEAN region. ASEAN witnessed its first such Growth Triangle, the SIJORI-Growth Triangle in 1989, which involved Singapore, the Johor state of Malaysia and Riau islands of

Indonesia. Its name was changed to The Indonesia-Malaysia-Singapore Growth Triangle (IMS-GT) in 1994. This growth triangle can be cited as a popular example of sub-regional growth linkages in the modern globalized world. Liberalization and deregulations of domestic markets and innovations in information and communication technology (ICT) have accelerated the growth triangle zone's overall economic development activity.

II. SIJORI-Growth Triangle – The Historical Perspective

Singapore, Johor and Riau formed the Johor-Riau Empire (1511-1824 A.D), but the region got divided into three parts with the growing European strength in the region. Riau got separated from Singapore and Johor due to the Anglo-Dutch Treaty in 1824. In 1819, Singapore was ceded to the British after Sir Stamford Raffles from the British East India Company arrived. In 1826, the states of Singapore, Penang and Malacca were merged into the Straits Settlements. In 1959, Singapore first got self-governance. After that, it joined the Federation of Malaya, Sabah and Sarawak and formed Malaysia in 1963. However, soon after this, Singapore got separated from Malaysia on August 9, 1965, due to some Indonesian government confrontation. The 1960s saw Singapore transforming into a hi-tech city-state. Historical ties among the three countries ensured free mobility of goods and factors within them even after they became separate entities. The business also grew because of their geographical proximity, strong social, ethnic, linguistic and cultural ties. Around 1965, Singapore's GDP per capita was only around \$500, and it suffered from severe resource shortages. Hence, it became important for the Singapore national leaders to take some very strict measures for embarking on development, which required disciplined and focused efforts about its future development process.

III. What drove the formation of the SIJORI-Growth Triangle?

The evolution of the SIJORI Growth Triangle was very much linked to the growth of the Singapore economy itself. Due to severe land shortage, it decided to focus on developing its hi-technology industrial and infrastructural projects. It must be noted that Singapore has always been linked to Malaysia's Johor state and Indonesia's Riau Archipelago. Because of this geographical closeness, the three governments decided to formalize these pre-existing



linkages. Singapore could share its capital, technology and entrepreneurial skills with Johor and Riau's extensive land, semi-skilled and unskilled labor and water resources. The main driving force behind the setting up of SIJORI-GT was Singapore itself. After it got independence in 1965, it started moving ahead with the strategy of promoting exports. It liberalized its policies, which resulted in increased FDI flows and higher GDP growth rates. Singapore is now a highly developed country, with its 2016 GDP Per Capita at the U.S. \$ 52, 960.71, which further increased to USD 57,714.30 (World Bank, 2018)¹. The per capita income of Singapore more than double between 1975 and 1980. In 1995 also it was Per capita GDP more than doubled from 11,864 US\$ to 24,936 US\$.

Other factors, such as rising costs and appreciating Singapore dollar, led to the reduced cost competitiveness of its labor-intensive industries. This necessitated the relocation of its labor-intensive industries to some nearby geographic locations, such as Johor and Riau, which could provide cheap labor (unskilled and semi-skilled) as well as extra land that Singapore required. Hence, HIA Chen (2009) says that Singapore was the most enthusiastic leader in this growth arrangement. Mcleod & McGee (1996) also maintain that the SIJORI growth triangle represented an arrangement in which Singapore's fast growth process could easily be felt in its neighbors' territories.

It can be cleared from the tables below that there are noticeable differences in terms of the levels of per capita income levels among the growth triangle members. It is very clear that Singapore figures at the top of the Gross Domestic Product per capita chart. This is followed by the per capita levels of GDP in Johor. The Riau Province can be seen at the bottom. This situation was present in the year 1989 when it was formed. Similar situations could be witnessed in 1994 and then in 2010 also. See tables 1 & 2.

**I. TABLE
KEY INDICATORS FOR THE IMS-GT: 1994**

Indicators	Singapore	Johor	Riau	Total
Area (Sq. Km.)	614	18,914	94,562	119,893
Population (million)	2.9	2.3	3.7	8.9
GDP (US\$ million)	70,200	4,338	3,320	77,858
GNP Per Capita (US\$)	24,425	2,192	897 a	27,514

Source: Chia Siow Yue & Lee Tsao Yuan (1992)
a. Refers to GDP Per Capita

¹ "World Bank Development Indicators 2018", The World Bank, Washington DC, USA

**II. TABLE
SELECTED INDICATORS OF THE IMS-GT IN 2010**

Indicators	Singapore	Johor	Riau Islands	Total
Area (sq. km.)	712	19,210	5,829	25,751
Population (million)	5.1	3.2	1.5 (I)	9.8 (approx.)
Per Capita GDP (US\$)	45,640	6,631	4,692(ii)	
GDP at current price (Million \$)	231,700	45,640	7,900(ii)	261,900 (approx.)

Source: As given by Sugimoto Yoshihide (2014) in "The Indonesia-Malaysia-Singapore Growth Triangle (IMS-GT) And Its Impact on The Ferry Transportation in The Riau Islands."

This growth arrangement was expected to help Singapore to tackle its water shortage problems also. The later inclusion of other provinces, namely, Bintan, allowed it to reduce its dependence on Johor alone for its water needs and ensure another water contract for Singapore for the next 50 years. Indonesian government wanted to join this initiative because of its policy to see fast growth in Riau and other underdeveloped provinces. On the Malaysian side, the 'twinning' policy of Johor state government with that of 'Singapore' helped it to grow as an industrially developed state due to massive investments that started flowing from Singapore and other developed ASEAN economies and Japan. Hence, the formation of this growth triangle resulted from strong political will and a conscious decision-making to modify their policies to promote economic development and all the nodes of the growth triangle: namely, Singapore, Johor and Riau Islands. One of the major driving factors for setting up of the IMS-Growth Triangle has been the economic reasons that were arising out of differences in per-unit costs of factors of production, namely land and labor as argued by Sparke et al. (2004), which have had significant implications for the Singaporean economy. The presence of economic complementarities is one of the major rational for the emergence of the SIJORI-GT, as Yue (2000: 378).

**III TABLE
FACTOR COSTS DIFFERENTIALS IN SIJORI GROWTH TRIANGLE: 1991**

	Singapore	Johor	Batam
Land Price (US\$ per sq. mt.)	4.25	4.08	2.30
Labor Cost (US\$ per month)			
Unskilled	350	150	90
Semi-skilled	420	220	140
Skilled	600	400	200

Source: Sparke et al. (2004) quoted, "Triangulating the Borderless World: Geographies of Power in the Indonesia-Malaysia-Singapore Growth Triangle."

The importance of economic factors informing the growth triangle can also be seen because of close Singapore-Johor relations and their geographical proximity, which attracted Singaporean companies, especially those in textiles and electronics assembly. The 'twinning' policy of Johor with Singapore since 1988 resulted in massive foreign direct investments into Johor, which were up by 200% in 1990 (Parsonage, 1992). According to Heng (2006), Indonesia's intentions to be a part of this arrangement and two other Growth Triangles of ASEAN were due to its regional development policy support.

IV. Expansion of the SIJORI-Growth Triangle

This growth triangle's original name was "Johor-Singapore-Riau Growth Triangle," which was later changed to the "SIJORI Growth Triangle." The formal announcement for its formation came on December 20, 1989, by the Deputy Prime Minister of Singapore, Goh Chok Tong. See Map 1 below. In July 1990, the entire Riau Province was included in the triangle area. West Sumatra joined in May 1995. This was followed by the official inclusion of the Riau Archipelago as part of the triangle area, including islands of Batam, Bintan and Singkep. At the IMS-GT Ministerial Meeting in 1996, the Malaysian states of Malacca, Negeri Sembilan and Pahang were also added. A year later, 5 additional Indonesian Provinces sought inclusion: Jambi, Bengkulu, South Sumatra, Lampung and West Kalimantan.



Map 1: The SIJORI Growth Triangle Map as depicted in Sparke et al. 2004

V. Economic Developments in the SIJORI-Growth Triangle

A. Developments in the City-State of Singapore

This growth zone has the credibility of being one of the most successful examples of cross-border initiatives for pushing growth, which has encouraged other ASEAN countries to enhance their sub-regional cooperation efforts. In terms of GDP per capita in current US\$, Singapore is way ahead of its other neighboring countries, i.e., Indonesia and Malaysia. See Figure 1 below.

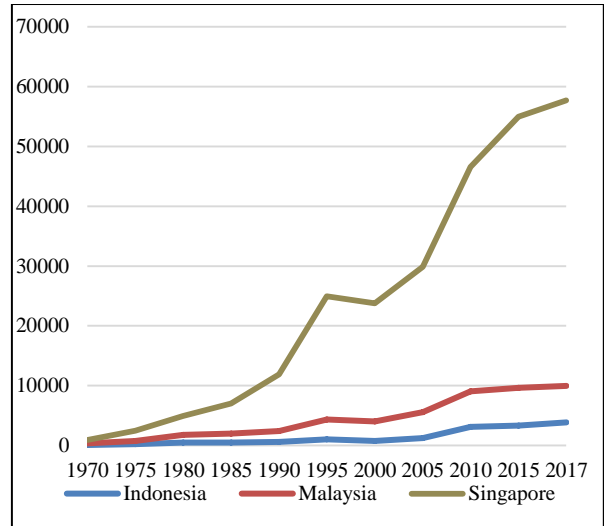


Figure 1: Per capita GDP (Current US\$): Singapore, Indonesia & Malaysia, 1970-2017

Source: The World Bank Development Indicators, 2018

The figure above shows that Singapore has shown a dramatic increase in its GDP throughout these years, except for some fall in 1997 to 1998 and 2008 to 2009, due to the Asian Financial Crisis and the global recession in 2008-09. Its annual GDP per capita was US\$ 11,864 in the year 1990, which grew to US\$ 57,714.30 in 2017. During the 1960s, the GNP per capita of Singapore was less than US\$ 320, which classified it as a third world country. Singapore is now a highly developed country in the Asia-Pacific region, with very high GDP per capita, human development index ranking and very high living standards of living. GDP per capita (Purchasing Power Parity) is ranked at number 3 at \$93,905.424 (World Bank Indicators, 2018). Growth can also be witnessed in Malaysia and Indonesia, except for the decline during the Crises periods.

The biggest reason for forming this economic alliance was the factor cost differentials that existed at that time amongst Singapore, Riau and Johor. These cost differentials gave ample opportunities to the Singaporean industrialists and business people to make the best use of the spatial closeness of the nearby resource-rich areas of Malaysia and Indonesia. The annual GDP Per Capita Growth rates improved considerably after forming the triangle, especially during the next 10 years, from 1990 to 2020. The growth rates jumped from 5.847 to 13.216 as per the World Bank Development Indicators' issues. See Table.4 below.

IV TABLE
SINGAPORE: PER CAPITA GDP ANNUAL
GROWTH (%) (1990-2017)

Year	GDP Per Capita Annual Growth %
1990	5.847
2000	7.028
2010	13.216
2015	1.035
2016	1.077
2017	3.527

Source: The World Bank, IBRD, Various Issues

The above table clearly shows that after the formation of the growth triangle, the GDP Per Capita Annual (%) growth rate of Singapore grew positively between 5.8 % in 1990 to an impressive 13.216 in 2010. However, the growth rate seems to have slowed down after 2010, reducing to less than 1.1 percent in 2015 and 2016, and increasing again to 3.5 % in 2017. Its HDI values also shot up from 0.718 to 0.932 during 1990-2017, an increase of almost thirty percent or almost an average annual increase of about one percent (Various Human Development Reports, UNDP). These figures put the country in the category of a very high H.D. Its position in 2017 was at number nine out of hundred and eighty-nine countries and territories (UNDP, 2018).

As per the Department of Statistics (DOS) official figures, Singapore, the total number of enterprises in Singapore in 2017 was around 2,20,100. SMEs constituted about 99% of them, while the non-SMEs constituted only 1%. Together, they employed about 3.4 million workforces. Of this, SMEs contribute about 65% of the total employment generation. Singapore is a major financial hub with several foreign enterprises at 34,704, which gives employment to 31% of the total labor force and generates 56% of Nominal Value Added. As per the business formations statistics report by Hawksford, 15,910 businesses were formed in the first quarter of 2016, which was 8.7% up to the corresponding period in 2015, thus reflecting its solid and pro-business environment².

² The location of Singapore is at the crossroads of the major shipping routes of the world, which include important sea routes between China and India. This uniqueness of its location touching the main trade and shipping routes of the world, which makes it easier for the businesses to

The infrastructure levels in Singapore are world-matching, and it can compete with any other developed nation. According to a survey conducted by a consulting firm Mercer, Singapore has been placed at number 1 among the annual ranking of more than 200 cities worldwide in terms of offering the best infrastructure, leaving Frankfurt and Munich behind at number two and three. It has an award-winning Changi Airport and a highly developed and efficient port infrastructure. The Port of Singapore won the award of 'Best Seaport in Asia' at the 2016 Asian Freight, Logistics and Supply Chain Awards (AFLAS) for the consecutive 28th time. The World Economic Forum, in its "Global Information Technology Report, 2016 has ranked it one of the top economies in providing ICT services, which brings it equal to countries such as Finland, Switzerland, Sweden, the Netherlands and the U.S.

Rapid industrialization and urbanization in Singapore have provided it with expertise in high-class professional services such as finance, management, consulting, project management and legal advice. In terms of financial services, Singapore has maintained its position in the world's top four financial centers. Its overall rating went up by 4 points to reach 769, as revealed by the Global Financial Centers Index (GFCI). Singapore remains one of Asia's most competitive top financial center and the fourth most important destination for the wealthy for managing their international funds around the world. According to Rebecca (2013), Singapore has become and is called a 'well managed' city because of the success that it has achieved in the past decades. Along with very high GDP per capita, it reflects a very high standard of living for its people, as indicated by the Mercer's Quality of Living Survey. The Global Competitiveness Index 2018 by the World Economic Forum has ranked Singapore second out of 140 economies, with a score of 83.5 out of a hundred, next only to the United States. Singapore was also Asia's leading city in the PwC 2016 "Cities of Opportunity Study." According to the World Bank's annual ratings, all these achievements made it possible for Singapore to move up to the second rank among 190 economies in the "Ease of Doing Business" index in the year 2016.

All this has resulted in increased Foreign Direct Investment (FDI) flows in Singapore, as reported by the Department of Statistics, Singapore 2018³. The total FDI stocks have been increasing over 2013-2017. The FDI stock has increased from S \$ 906 billion in 2013 to S \$ 1,568 billion in 2017, thus depicting an overall 73.1 % increase. The top countries, which are major investors in Singapore, are the United States of America, with 20.6% of the total FDIs, followed by British Virgin Islands (8.7%) and Cayman Islands (7.8%). The other top investing countries

get an easy access to ASEAN. That makes Singapore an easy gateway to ASEAN for the businesses as travelling to any Southeast nation is easy and fast.

³ 'Singapore in Figures: 2018, Department of Statistics, Singapore

are The Netherlands and U.K. (7.5%) and Japan (6.9%). The total merchandise trade in terms of Singapore \$ was 967.1 billion in 2017. The major trading partners of Singapore are China, Malaysia, E.U. 28 and the United States of America, followed by Hong-Kong and Taiwan. It is neighbor Malaysia, its partner in the SIJORI Growth Triangle, is its second-biggest trading partner. The Asian region and the European Union are the biggest trading partners of Singapore.

B. Developments in the Riau Island Province

The Riau Archipelago is the core group of islands within the Riau Islands Province in Indonesia, located south of Singapore. Batam, Bintan and Karimun are some of its main islands, which are bestowed with abundant natural and human resources. The location of the Riau Island Province is in the south of the South China Sea. Its neighboring and bordering countries are Singapore and Malaysia. In Indonesia, this province shares its borders with Riau, South Sumatra, Jambi and West Kalimantan. It is spread over an area of 251,801.71 Square Km. (25,181,071 Ha.)⁴.

a) Developments in the Batam Island

Batam is the most important island in the Riau Island Province in the SIJORI-GT, which has witnessed economic development and Singapore and Malaysia. This is one of the most developed islands in the Riau Province. Hence, it will be often used as a proxy for the Riau Province to explain the developments on the Indonesia side of the SIJORI growth triangle.

Batam is close to Singapore, which has developed into an industrial hub and is a part of a free-trade zone that has been established to boost trade with the latter. Batam was first designated as a Special Development Zone in the 1980s. Under B.J. Habibie, BIDA (Batam Industrial Development Authority), the island started witnessing rapid industrial development due to increased foreign investments. Batam's economic growth is highest in the Riau Island and much higher compared to other provinces in Indonesia. This makes Batam special. At the regional level, when measured at current price levels, it was per capita gross regional domestic product in 2014 was more than twelve thousand million in the Indonesian currency (IDR). Its growth rate in 2014 was 7.99%, higher than that in 2013, which was at 7.00%. According to a US-based consultancy 'Dermographia,' Batam is the fastest-growing city in the world by population. See Table 5 below.

⁴ Development Progress of Batam, Indonesia 2018.

**V TABLE
ANNUAL POPULATION CHANGE IN BATAM
(1990-2010)**

Year Block	Annual Change (Per year)
1990-2000	17.55
2000-2005	7.2
2005-2010	9.97

Source: <http://population.city/indonesia/batam/>

Batam is just 2/3 the size of Singapore, but it had a population of 1.2 million in the latest estimate, with an annual growth of 7.4 percent. If population growth remains the same as in 2005-2010, with the population growth around 9.97% per annum, then its population is projected to be around 2,220,434 (in person). According to the 2010 census information, the population's growth rate in Batam was almost eleven percent per annum. With such a high growth rate, Batam became one of the fastest-growing municipalities in Indonesia.

Batam City has been mentioned in the "17th Economic Infrastructure Conference" (Theme: Indonesia) (March 20, 2015) organized by Japan's Cabinet Secretariat and as leading examples for the Asian region, and is a city attracting attention as a development area for Japanese companies. Batam is exceptionally suitable for business. It is very close to Singapore and is linked very effectively because of developed logistics networks. The island is endowed with a vast amount of natural and human resources, because of which it can attract a lot of foreign investments.

This trend was very clearly seen after the formation of the triangle in the 1990s and early 2000s. A lot of labor-intensive manufacturing activity, mainly the electrical and electronics industry and the shipbuilding industry in the mid-2000s, along with booming tourism, could be witnessed because of several advantages that it offered. These developments resulted in a vibrant Batam island, which started earning substantial foreign exchange resources for Indonesia. The rate of employment generation almost touched more than 10 percent on an annual change basis. All this made Batam one of the richest in Indonesia, with Habibie as the chairman of BIDA, who was committed to transforming Batam into 'Another Singapore.'

Another island that received the major share of the FDIs that went into Indonesia after the formation of SIJORI-GT, besides Batam, was the Bintan Island. Four flagship projects were started by Singapore initially. One of them, the Batamindo Industrial Park, was set up in Batam in 1991. The projects that were started in the Bintan islands, namely the Bintan Industrial Estate and the Bintan Beach International Resort, were also very elaborate and

developed. The fourth flagship project, the Karimun Marine and Industry Complex, was initiated in the Karimun island. These four projects, along with several other smaller ones, changed these provinces' landscape and converted them into industrial centers.

After the setting up of the SIJORI Growth Triangle in 1989, FDI flows started to increase in Batam. Approved foreign investment in Batam soared from the U.S. \$ 65 million in 1988 to the almost U.S. \$ 300 million in 1990, more than a fourfold increase in three years. Singapore was on the top of the list of major investors. Almost half of Batam's total foreign investments came from Singapore alone, amounting to forty-eight percent. The other major investors were from the USA and the U.K. Japan was the next largest investor at 12 percent. Toward the end of 1994, total foreign investments in Batam almost exceeded fifty billion in U.S. dollars. More than three-fourth of these investments came from the private sector (Hutchinson, 2017). Rapid economic development in Batam resulted in increased investments and the transformation of migration and tourism. Foreign direct investments into Batam soon started to grow after it became a part of the SIJORI-GT, and Singapore accounts for almost half of the total FDIs in Batam in the year 1990. See Table 6.

VI TABLE
FOREIGN DIRECT INVESTMENTS IN BATAM (1990)

Country	Amount (U.S. \$ million)	(Percent)
Hong kong	39.0	5.4
Singapore	347.0	48.0
Japan	54.0	7.5
USA	172.0	24.0
Others	113.0	16.0

Source: Edward K'iche and Anna Ho (1993)

Increasing Indonesia's investments by Singapore has resulted in growth of urban mega-cities, which has ensured future supplies of water, food supply, and natural gas for Singapore (Lindquist, 2009). Funds have mostly gone into Batam's special economic zones, which has helped the private sector grow faster. There are 16 industrial estates in Batam, focusing on electronics, manufacturing and shipbuilding, with all modern facilities, covering a total area of 1,227 ha. The major part of FDIs in Batam comes from Singapore and the MNCs, which have their base in Singapore, involving nearly 70 percent of all the foreign manufacturing plants in Batam since 1989.

Batam had attracted around three billion U.S. dollars of government investment and a little less than twelve billion U.S. dollars of investment from the private sector by the end of December 2011. that took the total investment

figures to a total of approximately fifteen billion U.S. dollars. At the end of June 2013, it had accumulated about US\$ 16.47 billion in investment comprising US\$ 3.37 billion of government investment, mainly in infrastructural growth and nearly US\$ 13.10 billion of private investment. At the end of 2014, the cumulative investment went up to US\$ 17.71 billion. The number of foreign companies also went up from 1,247 to 1,699 while that of local companies is nearly 10,000. Foreign workers in Batam, whose number has now gone up to nearly 6,000, has led to more projects due to increased demand for housing.

Its highly developed and efficient ferry system became a favorite shopping destination with the Singaporeans and Malaysians who found it much cheaper to do the shopping and spend some leisure time there. All these developments resulted in an impressive increase in the total number of tourists from Singapore and Malaysia. The most significant development in the bilateral cooperation between Indonesia and Singapore was witnessed in the form of the setting up of the Batamindo Industrial Park (BIP), costing US\$ 400 million in 1990 (Perry, 1991). According to the Riau Islands tourism office, the number of foreign tourists visiting the Riau Islands Province increased by more than 20 percent between January to August 2018⁵. The largest percentage of these tourists come from Singapore, followed by Malaysia and China. Various new measures have been taken by BIFZA recently to attract more investors to set up their businesses in Batam, such as making the investor service platform online by making use of online platforms such as the 123J, under which the investment permit is issued to the investors in only three-hour time. The other such service is the KLIK, which permits accelerated investment for the construction programs.

b) Developments in the Batam-Bintan-Karimun Free Trade Zone (BBK-FTZ)

In the year 2007, the major islands of Riau namely, Batam, Bintan and Karimun, were granted the status of Free Trade Zone. See the map below. Officially declared as The Batam-Bintan-Karimun Free Trade Zone in the Riau Islands on January 19, 2009, by the President of Indonesia, this zone now has the legal foundation as a Special Economic Zone under the Riau Islands Province administration. The total foreign direct investments in the BBK-FTZ got a boost as a result of its formation. See Table 7.

⁵ Development Progress of Batam, Indonesia 2018

Table 7: Foreign Private Investment in BBK-FTZ (2011- 2015)

Year	Foreign Investment (US\$ million)	Private
2011	6,161	
2012	6,783	
2013	7,281	
2014	8,266	
2015	10,126	

Source: Official Website of BIFZA

The total Foreign Direct Investment into the free trade zone saw a massive increase due to the setting up of this zone. There was an increase of about 62.3 percent between 2011 and 2015. During this period, the direct investment figures almost touched a hundred billion U.S. dollars. The Riau Islands managed to attract about \$1 billion in new investments in 2007. This figure was almost more than double from 2006, thus taking the total investment figure to US\$ 11 billion from more than 1,150 foreign companies operating on the island. Singapore has been the biggest investor in the FTZ, accounting for more than 60 percent of the total investment, due to its proximity and locational advantages, followed by South Korea, Australia and the USA. Total investment value in the BBK special economic zone, for instance, was more than eight billion in U.S. dollars, whereas, in terms of Singapore dollars, the figure stood at nearly eleven billion in 2015. The Batam authorities gave these figures.

The flagship project, namely, the Batamindo Industrial Park, one part of the BBK-SEZ, attracted a total investment of \$11.6 billion in 2015. After the three got the status of FTZ, MTI minister Lim HK made special efforts to attract Japanese MNCs to set up their operations in BBK and not in Singapore because of the advantages of the closer proximity of both. Since there is a competition of other FTZs in the region, special efforts have to be made by the BBK to make them attractive for existing and potential investors. The Central Statistics Agency (BPS) provides information about the number of tourists in these islands. According to the BPS figures, during September 2015 alone, Batam attracted more than one million tourists to the island, while the island of Bintan saw this number at around two hundred and thirty thousand. Bintan got its first airport in 2017, which is expected to push tourism growth further.

Batam, which forms an important part of the BBK-Free Trade Zone in the Riau Islands province, has started facing criticism for being in the news for all the wrong reasons, from the foiled rocket terror plot to attack Singapore to riots over land disputes. As if it has some severe concerns, it appears that the BBK zone has also lost some of its shine, as it no longer appears business-friendly now. According to some observers, the Batam-Bintan-Karimun Free Trade Zone (BBK-FTZ) has failed to attract

significant investment or create employment as there are issues related to lack of infrastructure, rising labor costs and red-tape presence. However, there is an on-going effort to put things in place, and several measures have been taken to generate more optimism for the business in the free trade zone.

Heavy investments have been coming from Singapore into Bintan Island also. The island is a freshwater reservoir, which has attracted several companies from Singapore to invest in its various water-supply projects to construct new water reservoirs in Bintan for supplying water to Singapore. Singapore also gets an assured supply of natural gas from Bintan, as per two agreements signed between Singapore and the Indonesian oil company Pertamina. Investment funds have also flown in its industrial parks and high-end tourism facilities. Bulan island supplies consumable items to Singapore. Karimun is used for oil storage and shipyard facilities, whereas Singkep has been developed for ship-breaking yards (Colombijn, 2003).

Due to its proximity to Singapore and its location in the busy Strait of Malacca, the BBK-FTZ has a very strategic location for its potential investors. The two neighbors, Indonesia and Singapore, have already entered into a deal that will witness massive investment in this zone. Setting up of this FTZ has boosted up the level of infrastructure in the three regions. However, the idea did not go so well with the House of Representatives, which did put a question mark on this zone's success.

The Batam-Bintan-Karimun free trade zone is of strategic importance for both Singapore and Indonesia. It will be very appropriate to say that their future economic and other bilateral relations and scope of economic cooperation between the two will depend mainly on the developments in this zone. The government of Indonesia needs to address the issues that this free trade zone is facing at present. The kind of prevailing issues in the zone could also affect investment from Singapore in a very negative manner.

c) Economic Developments in Johor

Malaysia became interested in the growth triangle concept. It decided to join the SIJORI-Growth Triangle to benefit from its economic and industrial linkage created through closer cooperation in the growth zone. Johor, the southern state of Malaysia, is near Singapore and has abundant land and semi-skilled labor, which helped it become an active participant in the SIJORI-GT. Even before forming the SIJORI growth triangle, the relation of these two countries, Singapore and Malaysia, had been good, and the socio-economic, ethnic and cultural connections between Singapore and Johor had been strong. This happened due to their similar colonial background and geographical proximity, which always strengthened Singapore and Malaysia's relations. The mutual dependence of Johor and Singapore on each other is crucial as thousands of Malaysians cross over to

Singapore every day for their employment and work. Singaporeans, too, prefer to go to Johor Bahru for shopping and entertainment.

Parsonage (1992) stated this process of economic cooperation faced obstacles due to several tensions between the two countries. There were political and ethnic clashes between them, particularly after Singapore decided to separate from Malaysia in 1965 (Parsonage, 1992). These tensions surfaced again during the middle of the 1980s when Singapore embarked on its second Industrial Revolution, which aimed at a total restructuring of its manufacturing sector. Singapore now wanted to move into faster industrialization by promoting its higher value-added industries. For this, it wanted to relocate its labor-intensive operations to the neighboring states of Malaysia.

To promote this kind of cooperation, several steps were taken by Singaporean and Malaysian authorities such as MIDA and Singapore's EDB to facilitate the relocation of industries from Singapore to Johor and boost their tourism linkages. The announcing of the 'twinning with Singapore' policy by the Johor state government in 1988 resulted in a dramatic increase in investment from Singapore to Johor, which increased by almost 200 percent in the same year (Parsonage, 1992). Official statistics also show Johor's rank as the highest in the country last year in 2016, with RM31.1 billion (\$10.5 billion) of investments in the manufacturing sector, which contributed 41.6 percent of Malaysia's overall investment. A rapid increase in the investment into the state also resulted in the population increase, which went up from 2,70,625 as per the 2000 Census to 3,348,283, as reported in the 2010 Census. Johor has been experiencing fast growth due to its industrialization policy, housing development, agricultural and land development. It has benefited extremely due to its strategic location, with its closest neighbor being Singapore, a nation with abundant funds, infrastructure and expertise.

Johor occupies a strategic location in the IMS Growth Triangle, with around 3.7 million people, well-developed infrastructure and a large diversified economy. Its vast production linkages, abundant labor power and proximity to Singapore signify its importance for the latter also. Some new initiatives, such as Rapid Transit System and High-Speed Rail, are further expected to strengthen their connections. According to the Mercer's Quality of Life Rankings Survey (2017), the capital city of Kuala Lumpur was recently ranked as number two city in the Southeast Asian region in terms of parameters such as quality of life and living standards. In a survey of 231 cities all across the globe, its ranking was 86. The third best city was Johor Bahru, the capital of Johor, whose global ranking was 103.

As a result of the proximity with Singapore and the ease of using the latter's strengths, the city of Johor Bahru has turned into "a window to the world," which has attracted investors and tourists from everywhere, especially Singapore. In the year 2000, over three million visitors

traveled to Johor. The percentage of people traveling from Singapore to Johor formed nearly seventy percent of this figure. The causeway between Singapore and Johor carries more than 60,000 vehicles per day on an average day. Johor has been a major raw water supplier to Singapore, almost supplying more than half of its daily water needs. Singapore currently imports water from Johor under the 1962 Water Agreement, which expires in 2061.

Mercer's survey ranks a city according to the levels of infrastructure and assessment on other parameters such as electricity supply, information and communication infrastructure, sanitation standards and drinking water facilities, rail and road transportation and other logistics and the volume of air traffic, international flights and number of airports etc. In terms of city infrastructure parameters, the first position was bagged by Singapore, followed by Frankfurt and Munich, both in second place. The next ten years are dubbed as the "Golden Decade" for Johor, which will drive its growth to further higher levels.

In its initial phase, this growth triangle mainly worked as a bilateral arrangement rather than a trilateral one because of relatively weak linkages between Riau and Johor as economic complementarities lacked between the two significantly. This is the reason why Malaysia was not very committed until 1992. However, despite this, a lot of encouragement was given to attracting Johor's investments by relaxing rules relating to the FDI flows into Johor (Naidu, 1998). Formal approval of this initiative came only after 1992 after the Malaysian cabinet endorsed it and gave permission for being a part of it. As a result, many incentives were given in the plantation sector to invest in Indonesia under the growth triangle arrangement (Naidu, 1994). This led to many private investors from Johor and other parts of Malaysia to invest in Johor under the banner of the triangle. One such project was the Padang Industrial Park in West Sumatra by Johor Corporation and West Sumatra Government in 1997. Other such ventures were the Dumai Industrial Park in Riau Province, the Bintan Beach Resort and Pasir-Gudang-Tanjung Pinang (Bintan). The development of the Padang Industrial Park in West Sumatra gave a strong boost to the growth zone that had been going slow in the initial years of its establishment and attracted more investments into the sub-region.

VI. Conclusion

The SIJORI-GT has been a sub-regional growth model in which contiguous areas of three nations have decided to form a new kind of cooperation, which was expected to ensure a win-win solution for all of them. It was not meant to be a zero-sum game. This special kind of cooperation has been accepted as a powerful Asian weapon against the protectionist tendencies adopted by the developed nations, which can be unfavorable for the developing world in today's uncertain times of globalization. The member participants of this growth initiative are at varying economic development levels and have significant factor endowments and comparative advantages, which have resulted in economic complementarities. All these factors

have finally led to the successful functioning of this growth zone. In this arrangement, Singapore has an advantage over others regarding its access to capital, skilled labor and modern hi-tech services and a very advanced level of infrastructural facilities. On the Indonesian side, the advantages are a large pool of unskilled labor, access to basic technology and an abundant supply of natural resources- mainly its underdeveloped land. For Malaysia, it is the availability of its natural resources, semi-skilled, and intermediate technology.

The presence of all these factors has benefited the three participants in the SIJORI triangle in many ways. Tourism and investments have increased substantially in Singapore. It has grown into a modern financial and managerial hub for the ASEAN region. For Johor and Riau also, the gains have been substantial. Singapore became the largest investor in Riau, thus leading to massive developments there. Singapore has been investing almost one-third of its total investment in Indonesia's Riau Islands Province. In a further post in the Jakarta Post, the BBK-FTZ, which is located very close to Singapore, has attracted billions of foreign direct investments in recent years in agri-business, manufacturing, and tourism shipbuilding and fisheries etc. (Jakarta Post, August 12, 2011).

The government of Johor is also going to review the SIJORI-Growth Triangle to increase the state's development by further strengthening relations between the three-member participating counties. This is because the state government believes that the SIJORI concept is still relevant today. It has the potential to offer tremendous opportunities for further growth of all its members. The concept has not met with successes as anticipated. However, it is still relevant, as said by the State International Trade, Investment and Utilities Committee Chairman Jimmy Puah to the reporters. According to him, the concept of SIJORI would allow them to utilize the advantages of their neighboring countries to ensure their economy continues to develop in line with its neighbors.

Singapore is one of the wealthiest nations in Asia. Its presence in the SIJORI growth triangle suggests that there can be large variations among member participants' economic status, which suggests a greater scope for more economic complementarities in these cross-border sub-regional projects. Malaysia and Indonesia are also developing fast. It makes sense for Singapore to remain in this arrangement to retain her attractiveness as a knowledge-based and developed financial and managerial growth center.

BIBLIOGRAPHY

- [1] "ADB's Work to Support Regional Cooperation in Asia and the Pacific," Asian Development Bank website/Homepage, <https://www.adb.org/themes/regional-cooperation/overview>, accessed January 28, 2017
- [2] Abonyi, G. & Thant, M. (1997). "Globalization and regional integration in Asia", Asian Development Bank, Oxford University Press, Hong Kong.
- [3] Asian Developing Bank (2008). "Emerging Asian Regionalism: A Partnership for Shared Prosperity-Highlights", ADB, Manila, Philippines.
- [4] Asian Development Bank, 2018. "Regional Economic Outlook and Development Challenges, in "Asian Economic Integration Report: Highlights" ADB, Manila, Philippines, P. 1.
- [5] Azis, H.A. (2010). "The bridge of Batam, Bintan and Karimum to Singapore: FTZs and investment opportunities, speech presented at Traders Hotel, Singapore by Chairman of the Budget Committee of the House of Representatives and Member of Parliament from Riau Archipelago", Republic of Indonesia.
- [6] Bunnell, T., Grundy-Warr, C., Sidaway J. D. & Sparke, M. (2012) "Geographies of power in the Indonesia– Malaysia–Singapore Growth Triangle" In "International handbook of globalization and world cities" (Eds.) Ben Derudder ET. Al., Edward Elgar Publishing Limited, U.K., 460-467.
- [7] Carl G., Peachey, K. & Perry M. (1999). Fragmented Integration in the Singapore-Indonesian Border Zone: Southeast Asia's 'Growth Triangle' Against the Global Economy, *International Journal of Urban and Regional Research*, 23 (2), 304-328.
- [8] Chen, E.K.Y. & Kwan, C.H. (1997). Asia's Borderless Economy: The Emergence of Subregional Economic Zones, London: Allen and Unwin, 137-156.
- [9] Chen, X. (2018). Rethinking cross-border regional cooperation. In: Elisabetta Nadalutti, E. & Kallscheuer O. (Eds.) *Region-making and cross-border cooperation, New evidence from four continents*, Routledge: London and New York, 81-105.
- [10] Chia S. Y. (1997). "Regionalism and Sub-regionalism in ASEAN: The Free Trade Area and Growth Triangle Models" In Takatoshi I. & Krueger, A. O. (Eds.) *Regionalism versus Multilateral Trade Arrangements*, National Bureau of Economic Research (NBER) – East Asia Seminar on Economics, Volume 6, the University of Chicago Press, 275-312.
- [11] Chia, S. Y., and Lee T. Y. (1992). "Sub-regional economic zones: A new motive force in Asia-Pacific development," Paper presented at the 20th Pacific Trade and Development Conference, Washington DC, September 10-12.
- [12] Chen, His-I A. (2009) 'Transnational Sub-regional Cooperation in Practice' in Dynamics of Micro-regionalism and Micro-regionalization in the East Asia Pacific, Ph.D. thesis, Department of History and Politics, University of Wollongong
- [13] Colombijn, F. (2003). Chicks and Chicken: Singapore's Expansion to Riau, In The Newsletter 31, Summer 2003 *Mega Urbanization in Asia*, Web source: <https://ias.asia/the-newsletter/>, accessed June 20, 2016.
- [14] Heng, T. M. (2006). Development in the Indonesia-Malaysia-Singapore Growth Triangle, NUS Department of Economics, SCAPE Working Paper Series, Paper No. 2006/06, 1-16.
- [15] Hutchinson, F. and Chong, T. (2016). The SIJORI Cross-Border Region: More than a Triangle. In: Hutchinson, F. & Chong, T. (Eds.) *The SIJORI Cross – Border Region: Transnational Politics, Economics, and Culture*, ISEAS, Yusof- Ishak Institute, Singapore, 9-30.
- [16] Kakazu, H. (1997). "Growth Triangles in ASEAN – A New Approach to Regional Cooperation". APEC Discussion Paper Series, March, GSID, Nagoya University.
- [17] Loh, B. (2016). "The Social Construction of Comparative Advantage and the SIJORI-Growth Triangle." In: The SIJORI Cross-Border Region: Transnational Politics, Economics, and Culture, (Eds.) Francis E. Hutchinson & Terence Chong, Yusof Ishak Institute, ISEAS, Singapore, 105-124.
- [18] Mcleod S. and McGee, T. G. (1996). "The Singapore-Johor-Riau Growth Triangle: An Emerging Extended Metropolitan Region", In Lo. F. & Yeung, Y.
- [19] Nadalutti, E. (2015). "The rise of trans-border regions in Southeast Asia: behind the dynamics of informal and formal integration processes in the 'Indonesia– Malaysia–Singapore' growth triangle", *The Pacific Review*, 28(4), 1-24
- [20] Naidu, G. (1998). "Johor-Singapore-Riau Growth Triangle: Progress and Prospects". In: Growth Triangles in Asia, edited by Thant, M., Tang, M. & Kakazu H., Hong Kong: Oxford University Press, 231-255.
- [21] Parsonage, J. (1992). Southeast Asia's 'Growth Triangle': a sub-regional response to global transformation. *International Journal of Urban and Regional Research*, 16 (2), 307-17.

- [22] Peachey, K., Perry, M. & Grundy-Warr, C. (1998). "The Riau Islands and Economic Cooperation in the Singapore-Indonesian Border Zone", *Boundary and Territory Briefing* 2 (3): 1-59
- [23] Poh K. W. & Kwan K. N. (2009). Batam, Bintan and Karimun – "Past History and Current Development Towards Being A SEZ. *Lee Kuan Yew School of Public Policy*", National University of Singapore (NUS), Singapore, 3-4. February 2019.
- [24] Rebecca, T. Y. H. (2013). Singapore's Untapped Hinterlands: Opportunities & Obstacles? Monetary Authority of Singapore, Economic Society of Singapore, Raffles Institution. *Raffles Institution*, Web Source: <http://www.ess.org.sg> accessed August 20, 2014.
- [25] Sparke, M., Sideway, J.D., Bunnell, T. & Grundy- Warr, C. (2004). Triangulating the Borderless World: Geographies of Power in the IMS Growth Triangle, *Transactions of the Institute of British Geographer*, 29 (4), 485-98.
- [26] Thant, M., Tang, M. & Kakazu, H. (1994). Growth Triangles in Asia: A New Approach to Regional Economic Cooperation, Hong Kong: Oxford University Press and ADB.
- [27] Toh M. H. and Jiang B. (2016). The SIJORI Cross Border Region As An Economic Entity in 1990 and 2013, And Perspective for 2030. In: *The SIJORI Cross-Border Region: Transnational Politics, Economics and Culture*. Francis E. Hutchinson and Terence Chong, (Eds.), ISEAS, Singapore, pp. 481.
- [28] Van Grunsven L. & Hutchinson F. E. (2017). The evolution of the electronics industry on Batam Island (Riau Islands Province, Indonesia): an evolutionary trajectory contributing to regional resilience? *GeoJournal*, 82(3), 475-492
- [29] Wadley, D. & Parasati, H. (2000). Inside South East Asia's Growth Triangles, *Geography*, 85(4), 323-334.
- [30] World Bank (2018). Doing Business: Report 2018. *The World Bank Group*, Washington, USA.
- [31] World Bank Development Indicators (2018), World Bank open data, free and open access to global development data, World Bank, Washington DC, <https://data.worldbank.org/>
- [32] Yani, Y. M. & Nizmi, Y. E. (2018). Application of the Cross Border Regions concept in the Indonesia-Malaysia Sub-regional Economic Cooperation- Singapore Growth Triangle (IMS-GT). *Insignia: Journal of International Relations*, 5(1), 31-45.
- [33] Yoshihide, S. (2014) The Indonesia-Malaysia-Singapore Growth Triangle (IMS- G.T.) And Its Impact On The Ferry Transportation In The Riau Islands. *Doctoral thesis submitted to the National University of Singapore*, Singapore.

Web Sources

- [1] www.adb.org
- [2] <http://www.singstat.gov.sg/>
- [3] <http://www.dosm.gov.my/v1/>
- [4] http://www.batam-center.web.id/geninfo_investing.html
- [5] <https://ugec.org/docs/ugec/reports/ling-choong-presentation.pdf>
- [6] http://unctad.org/en/docs/trd2007_en.pdf,
- [7] <http://www.apec.org/about-us/about-apec/member-economies.aspx>,
- [8] <http://www.aseansec.org/10342.htm>,
- [9] <http://www.medco.gov.in/>
- [10] [http://www.mida.gov.my/home/2702/news/johor-still-top-manufacturing-destination-/](http://www.mida.gov.my/home/2702/news/johor-still-top-manufacturing-destination/)
- [11] <http://www.thejakartapost.com/news/>
- [12] <http://www.sembcorp.com/en/integrated-urban>
- [13] <http://www.todayonline.com/business/three-ts-behind-singapores-future-leading-financial-centre>,
- [14] http://www.bpbatam.go.id/eng/Industry_economy/invest_guide.jsp
- [15] <http://www.singstat.gov.sg/stats/themes/people/hist/popn.html>
- [16] <http://data.worldbank.org/>

Press Releases and News

- [1] 'BIDA (2000) document show foreign investments from Singapore - based companies to the tune of over U.S. \$ 10 billion' (BIDA, 2000)
- [2] 'Government urged to solve Batam investment problems as firm flees,' *Jakarta Post*, June 7, 2014.
- [3] 'Minister blames poor planning for Batam's slow growth,' *Jakarta Post*, June 7, 2014, Retrieved March 11, 2015
- [4] "Doing business in Batam Free Trade Zone," Posted by Lauri Lahi on January 14, 2013, for EMERHUB, available online at <http://emerhub.com/indonesia/doing-business-Batam-free-trade-zone/>, accessed January 18, 2017.
- [5] "Malaysia seeks revival of Indonesia-Malaysia-Singapore growth triangle" *Borneo Post Online*, Friday, September 5, 2014
- [6] BG Lee: Growth triangles will benefit the ASEAN region. (1994, December 18). *The Straits Times*, p. 1
- [7] Fadli, "Increasing wages driving investors out of Batam Island" *The Jakarta Post*, Batam, Riau Islands Business, July 15, 2014.
- [8] Kok K M K 2002 Create an independent water supply for S'pore *The Straits Times* February 7, 8-9
- [9] *Straits Times* (Singapore) 'Johor well placed to be growth triangles top player' July 2, 1997.
- [10] "Will the economic corridor policy live on paper only?" (*The Jakarta Post* 2011)