

Sustainable Ecosystem of Regional Development, Infrastructure and Tourism in Major Countries and Cities in Asia

Kwok Tak Kit

Abstract—In view of the global population is increasing; it is the prime concern of government and community to diversify the dense population to regional area and maintain a healthy and sustained economic growth. This paper is to outline the interaction of different attributes which critically affect regional development, infrastructure and tourism. This research not only focused on the relation and interaction of regional development and associated infrastructure but also provides a holistic study and review of the ecosystem of regional development, infrastructure and tourism development. In this study, we will review the three aspects development and their interaction in different cities in Asia. The finding will demonstrate how those factors affect the ecosystem and sustainability and provide some insight and material for further review and discussion.

Keywords—Regional development, infrastructure, sustainability, tourism

I. INTRODUCTION

WITH the rapid global economic growth in developed countries and cities, the concern and necessity of regional development to diversify the dense population together with the maintenance of a healthy and sustainable economic growth become the prime concern of the government and community. During the process of regional development and economic growth, governments and stakeholders shall have to tackle and address the global climate change, achievement to reduce carbon emission, conservation of natural resources, minimization of pollution impact and balance of the inequality of regional growth. Infrastructure development, being the drive for regional development and associated enabling industries like tourism, commercial activities, etc., takes up the role of fuel supply to maintain economic growth and sustainability of regional areas by creating government revenue, job opportunities and attracting local and foreign investment. The importance of infrastructure is to improve public health and crucial for creating a positive legacy of economic growth which is more resilient, sustainable and productive.

This paper is to outline the interaction of different attributes which affect regional development, infrastructure and tourism. The paradigm of regional development mainly focuses on the relationship with development of infrastructure in different research but there is a lack of a holistic study of the ecosystem of regional development, infrastructure and tourism and their

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impact on the economy for major countries and cities in Asia. The factors which affect the sustainability of regional development are detailed discussed in this paper and provide a useful framework for discussion amongst stakeholders and practitioners. Well oriented and sustainable regional development can promote opportunities for housing supply, economic development, job creation, stimulate investment and diversify the dense population in developed cities.

II. RELATIONSHIP OF REGIONAL DEVELOPMENT, INFRASTRUCTURE AND TOURISM

The benefits of regional development are the generation of income for local communities, promotion of rural tourism and acceleration of infrastructure construction which all factors help to improve the livability and sustainability of the rural area. Those benefits can then be used by these communities towards the sustainability of their traditional activities.

The viability and success of regional development depends on different key factors like government incentive, commercial, economic, and logistical issues, accessibility and infrastructure of the destination, sustainability and innovation, availability of skills, tourism and interest of investors. Major challenge of regional development is the lack of close coordination between master planning, infrastructure and associated sustainability development including industry and tourism development and incentive by governments plays an important role in this aspect.

(1) Government Incentive

Tax incentive is one of the major considerations and attraction of local and foreign investment and participation in infrastructure and associated industries development. Investment tax incentives are provided by the supportive government and stakeholders to explore the potential of large scale and venture capital on infrastructure investment. Funding from the government is also necessary to promote and accelerate regional and infrastructure development. In Hong Kong, the government has recently announced the Northern Metropolis Development Strategy. The strategy concept of transport infrastructure-led development aims to provide a clear roadmap on future regional and economy development.

(2) Commercial

Sustainable regional development provides a user and environmentally friendly environment for different

commercial activities and encourages the people in developed cities and investment of internal companies to move toward the regional area and enhance the sustainability of the regional development.

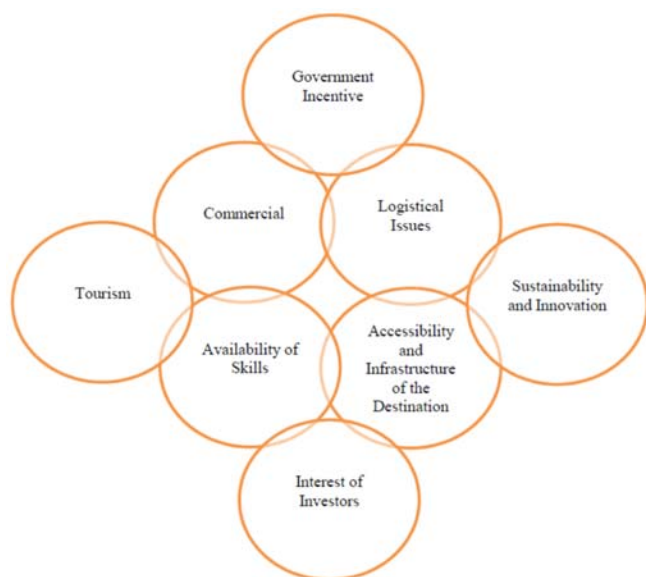


Fig. 1 Key Factors in Regional Development

(3) Logistical Issues

The logistics industry plays an important role and contribution to sustainable maintenance of regional economic growth. The development of effective logistic services can enhance the management, delivery and distribution within a short time and improve the transportation and communication between developed and regional cities. According to [5], “Logistic sector appears as the most important factor of development in sustainable maintenance of a regional development”

(4) Accessibility and Infrastructure of the Destination

It is always a question in regional development whether the destination dominates the development accessibility and infrastructure or vice versa. In most of the countries and cities, the government dominated the decision on the location factor of regional development. In terms of substantial investment in infrastructure like ports, railway, utilities, institutional and community facilities, etc., the government acts as the engine of regional development including infrastructure and transport system construction. Once the accessibility is improved, the potential and opportunity for investors can therefore be unlocked.

(5) Sustainability and Innovation

The pattern of traditional regional development across varied countries and cities generates carbon emission due to the use of resources, energy during the development. The adoption of internationally recognized environmental assessment tools and certification is matured in various major countries and cities around the world. In order to meet the Paris Agreement on zero carbon emission, infrastructure

should adopt the internally environmental assessment and certification as first priority to align the road map for associated industries development like tourism, community and commercial activities in regional development. Innovation and advanced building technology like Building Information modeling (BIM) and prefabrication has significant implications for sustainable building and infrastructure development and meet the net zero future.

(6) Availability of Skills

With the global concern and quick development of regional development, the technologies and new skilled professionals in various countries are evolving. Most importantly, the trend of building for sustainability has become the lead of infrastructure development in sustainable development, resource management and diversification around resource endowments. [7] The lack and shortage of global highly skilled multidisciplinary professionals and sustainability specialists in various counties and cities in Asia had hindered the implementation of sustainable regional development and infrastructure.

(7) Tourism

Sustainable tourism creates significant economic impact and positive regional development in a sustainable way. The infrastructure of regional development provided the basic framework and roadmaps for the development of the tourism industry and in turn the tourism contributed and sustained the economy of regional development and improved the living standard of the community [1], [3]. Different counties and cities have their unique characteristic and orientation of the tourism model based on their geography and economy structure [8].

(8) Interest of Investors

The well sustainable planning of infrastructure and regional development provides a good commercial environment for investors and can attract high caliber investors for large scale investment. In commercial point of view, an environmentally friendly environment accompanied with ready-made premises can attract local and foreign investment to rural and regional areas [10], [11]. Improvement of regional regulation based on the needs of investors is a necessity in certain countries and cities to accelerate the inflow of investment [12].

III. SUSTAINABLE REGIONAL DEVELOPMENT AND TOURISM

According to [4], “The other influence for developing a sustainability industry base is the dominance of tourism. Tourism is a considerable economic influence and provides a large resource of customers, and revenue. Development of high quality sustainable accommodation and ecotourism service is a regional goal but must be responsive to supply and demand”. Careful consideration in planning of tourism and balance between economic, environmental, conservation of historic and cultural values may also be detrimental to the development of regional development [6].

Study of Successful Tourism Industry Model Development in

Major Cities in Asia

One of the factors which can maintain the sustainability of regional development is tourism industry as it takes and contributes a significant portion of GDP in different major countries and cities. The benefit of successful international tourism is hard to quantify and it is often used to use the Gross Domestic Product (GDP) per capita as a reference for statistical approximation. Review of different tourism models and their contribution to GDP in major countries and cities in Asia is analyzed in Table I to show the dominance of tourism (before the outbreak of COVID 19) in the economy.

TABLE I
 COMPARATIVE ANALYSIS: DIFFERENT TOURISM MODELS AND THEIR CONTRIBUTION TO GDP IN MAJOR COUNTRIES AND CITIES IN ASIA

Location	Characteristic and Orientation of Tourism Model	Tourism Contribution to GDP (2019) [13]
Macau	Gambling, adult entertainment venues	72%
Hong Kong	Shopping, exhibition and convention, theme parks, hotels, cuisine	17.6%
Singapore	Heritage, scenery, culture, cuisine, hotels	10%
Japan	Natural scenery, cuisine, culture, heritage, technology, shopping, sport	7.5%
Australia	Natural scenery, cuisine, culture, heritage, natural park, leisure, sport	10.9%

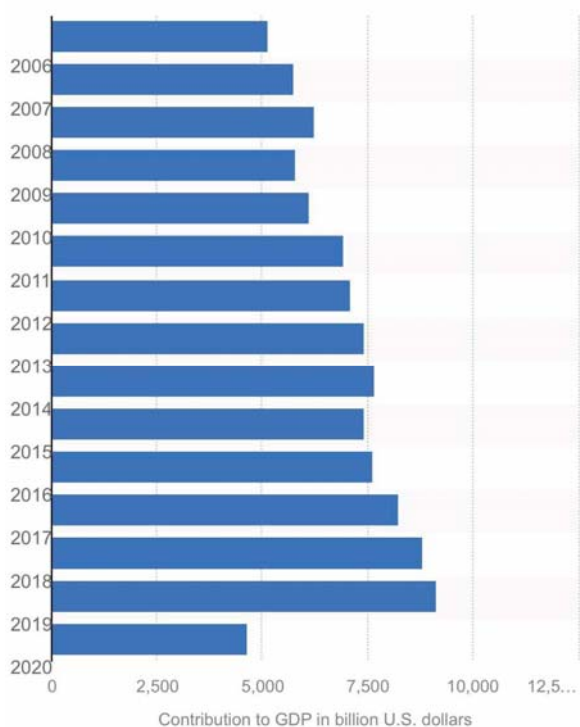


Fig. 2 Total Contribution of Travel and Tourism to GDP Worldwide from 2006 to 2020

The relationship of population and GDP has an indication of economic growth at macro level. However, the business model, type of commercial activity, age of population, and geography varied in different countries. In generic terms, population growth and investment in infrastructure help improve

economic and GDP growth. Growth of population resulted to decrease the living standard in densely developed countries and cities and the increase the incentive to regional development.

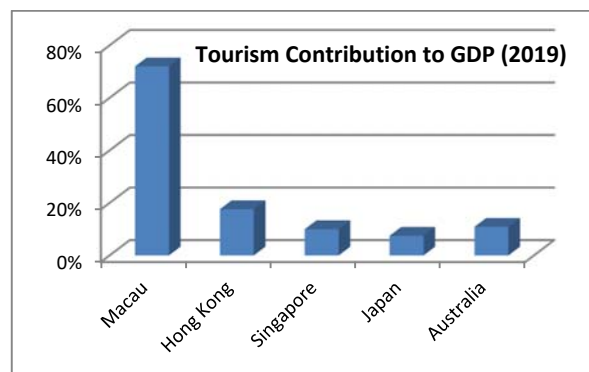


Fig. 3 Tourism Contribution to GDP in Major Countries and Cities [13]

TABLE II
 COMPARATIVE ANALYSIS: 2019 GDP AND POPULATION DATA IN MAJOR COUNTRIES AND CITIES IN ASIA

Location	Population (Thousands) [13]	GDP in 2019 (US\$) [13]
Australia	21,845.99	1.397 Trillion
Hong Kong	7,507.40	363.016 Billion
Japan	115,782.42	5.065 Trillion
Singapore	5,703.57	374.386 Billion

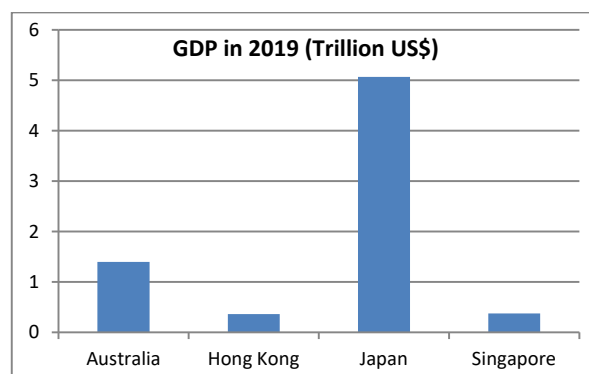


Fig. 4 2019 GDP and Population Data in Major Countries and Cities in Asia [13]

IV. IMPORTANCE OF REGIONAL DEVELOPMENT, INFRASTRUCTURE, TOURISM IN POST PANDEMIC ECONOMY RECOVERY

Since the COVID-19 pandemic had brought tourism to a halt for more than 2 years, different countries and cities around the world had announced different short and long stimuli and recovery plans to tackle for the influence of pandemic. Theme Park being one of the most popular and high revenue sectors in worldwide tourism had faced a significant decline in 2020 with the outbreak of COVID-19.

Review of the stimulus plan and roadmap of economy recovery in major counties and cities in Asia is illustrated to demonstrate the importance of regional development, infrastructure and tourism.

Leading amusement and theme parks worldwide in 2019 and 2020, by attendance (in millions)

Characteristic	2019	2020
Magic Kingdom (Walt Disney World), USA	20.96	6.94
Disneyland Anaheim, USA	18.66	3.67
Tokyo Disneyland, Japan	17.91	4.16
Tokyo DisneySea, Japan	14.65	3.4
Universal Studios, Japan	14.5	4.9
Disney's Animal Kingdom, USA	13.89	4.17
Epcot (Walt Disney World), USA	12.44	4.04
Chimelong Ocean Kingdom, China	11.74	4.8
Disney's Hollywood Studios, USA	11.48	3.68
Shanghai Disneyland, China	11.21	5.5
Universal Studios Orlando, USA	10.92	3.91
Islands of Adventure, USA	10.38	3.64
Disney's California Adventure, USA	9.86	1.92
Disneyland Park, France	9.74	2.62
Universal Studios Hollywood, USA	9.15	1.7
Everland, South Korea	6.61	2.76
Nagashima Spa Land, Japan	5.95	2.4
Lotte World, South Korea	5.95	1.56
Europa-Park, Germany	5.75	2.5
Ocean Park, Hong Kong S.A.R.	5.7	2.2
Hong Kong Disneyland, Hong Kong S.A.R.	5.7	1.7
Efteling Theme Park Resort, the Netherlands	5.26	2.9
Walt Disney Studios Park, France	5.25	1.41
OCT Happy Valley, Beijing, China	5.16	3.95
Chimelong Paradise, China	4.91	2.68

Fig. 5 2019/2020 Leading Amusement and Theme Parks Worldwide [14]

TABLE III
COMPARATIVE ANALYSIS: GOVERNMENT STIMULUS PLAN AND INVESTMENT IN INFRASTRUCTURE

Location	Government Long Term Stimulus Plan	Investment in Infrastructure
Australia	Australian Government, Infrastructure Australia, Reforms to meet Australia's Future Infrastructure Needs, 2021 Australian Infrastructure Plan [2]	AUS\$110 billion in infrastructure investment (US\$81 million)
Hong Kong	The 2021-22 Budget [4]	HK\$84.1 billion in infrastructure investment and construction industry (US\$10.8 billion)
Japan	Japanese Public Finance Fact Sheet, Ministry of Finance, April 2021 [9], [14]	Japan Yen 6,455.1 billion in tourism (improvement of infrastructure for inbound revival) (US\$56 billion)
Singapore	Singapore 2021 budget: COVID-19 Resilience Package [15]	90 billion Singapore dollar (US\$66.75 billion) in infrastructure investment

V. CONCLUSION

For long term and strategically sustainable regional development planning, policy makers and businessman should determine the weighting of different attributes discussed in previous paragraphs, assess the competitiveness and choose the suitable and appropriate sustainable industries like tourism model to achieve the potential outcome and benefit of regional development. Based on this study, developing natural scenery

tourism, cultural heritage is considered a more long lasting sustainable and safe model for achievement of the exploration of greater potential of sustainable regional and infrastructure development. The analysis and study of the paper demonstrated the importance of the ecosystem of regional development, infrastructure and tourism and outlined the different key factors involved in the ecosystem which affect and drive the economic development of various sectors to a new phase.

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