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The Key Success Factors of Penang As the Silicon Valley of the East

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Abstract

The aims of this study is to analyze the key success factors of SEZs in Malaysia especially Penang as a centre of investment which is recognised as the Silicon Valley of the East. By employing qualitative research, the result of this study shows that Penang sources of competitiveness laid on their strategic location (close to airport and harbour), well equipped infrastructure, transparency in custom, tax offices, good education to support industry, supply chain, IT as well as the availability of talented human resources who have division background that suitable for electronic industry. This research also reveal the important of cluster strategy, strong comitment and support from local and central government.

Keywords:

special economic zone, regional competitiveness, cluster strategy, Malaysia

Introduction

Penang, one of Special Economic Zones (SEZ) that focuses on electronic industry is one of the most successful states in Malaysia. Since the year 2010 Penang has recorded as the highest investment in Malaysia.

The dynamic growing industrial cluster, supply chain, human resource, transfer of knowledge, and other facilities available in this area have successfully boost foreign direct investment in Malaysia, decrease unemployment, and eventually increase regional competitiveness. Penang has transformed to become manufacturing hub for high-tech giants such as Intel, Motorola, IBM and Dell.

They aggressively expand their business in Malaysia by not only operating one production place but also developed several sites of production in Penang. Even Dell has moved their call centre to Penang.

The strategic location of SEZ in Penang - just 10 minutes from airport and 15 minutes from harbour - allows Dell to deliver their product from Penang to US only within 28 hours.

This paper is trying to analyze the key success factors of SEZs in Malaysia, especially in Penang which is widely recognized as the Silicon Valley of the East. Throughout the history, Malaysian industry apparently has shifted from low wage, labour-intensive manufacturing activities organized by foreign-based multinational companies (MNCs) to low cost, rapid ramp-up, high volume, increasingly automated manufacturing activities with special capabilities in assembly, testing, and packaging of semiconductors and hard disc drives (Best, 1997). Malaysia has developed SEZs in significant quantities but the greatest returns come from a subsection of large-scale zones with favourable locations, good planning and access to the resources. According to the 2010 World Competitiveness Yearbook, in the year 2010 Malaysia for the first time has earned a position among the 10 most competitive countries in the world, up from 18th placing last year (<http://www.imd.ch/research/centers>). The list measures Malaysia against 58 countries this year, from 57 nations last year. With an index score of 87,228, Malaysia has joined the ranks of the most competitive countries in the world, sharing the Top 10 ranking with Singapore, Hong Kong, the US, Switzerland, Australia, Sweden, Canada, Taiwan and Norway.

Figure 1. Malaysian Competitiveness record



Source: MIDA presentation April 2011

According to the IMD World Competitiveness Center, competitiveness is defined as "how nations and businesses are managing the totality of their competencies to achieve greater prosperity.

IMD further describes competitiveness as “a country’s ability to resist adversity and show resilience to weather” global financial crises. The performance of Malaysian competitiveness can be seen in Figure 1.

Malaysia Ministry of International Trade and Industry clearly stated that to have a sustained growth demands, Malaysian electronics industry have to develop a transition to more automated operations involving high technology and knowledge-driven processes (Best, 1999).

One of the strategies to achieve a good economic performance is to increase export through development of Special Economic Zones (SEZs).

This zone has been seen as a key instrument not only for promoting exports and earning foreign exchange but also for stimulating economic growth through additional investment, technology transfers, and employment generation. SEZs has been proven to help industrial investors to lead economic growth which eventually increase country competitiveness. This paper is divided into four parts. First, we explain the methodology of this research which is followed by the role of Penang as a centre of manufacturing industry in Malaysia. Third, we analyze the key success factor of SEZ in Malaysia which consist of: human resource, transfer of knowledge, Malaysian cluster strategy, input factors, role of government in supporting SEZs, and incentive. Fourth, we present Malaysia’s investment trend. Finally, we close this paper with conclusion.

Table 1: Malaysia Total Number of Investment(Source: MIDA)

State	Februari 2011				2010
	No. of approvals	Proposed Investment (RM Million)			Total Proposed Investment (RM Million)
		Domestic	Foreign	Total	
FT Kuala Lumpur	3	94.6	95.4	190.0	55.0
FT Labuan	0	0	0	0	14.9
Selangor	41	463.2	1,299.2	1,762.4	10,641.8
Penang	16	633.9	18.0	651.9 (3rd)	12,237.9 (1st)
Perak	2	1.0	16.8	17.8	3,039.7
Johor	36	2,472.2	518.3	2,990.5	7,464.9
Negeri Sembilan	3	25.0	0	25.0	1,292.6
Melaka	6	221.9	42.6	264.5	1,631.1
Kedah	8	12.6	141.7	154.3	1,960.6
Pahang	4	52.4	30.6	83.0	1,038.7
Kelantan	1	0	6.6	6.6	169.5
Terengganu	3	220.8	0	220.8	2,327.9
Perlis	0	0	0	0	31.4
Sabah	5	58.1	15.9	74.0	1,325.6
Sarawak	4	171.7	199.1	370.8	3,945.0
Total	132	4,427.4	2,384.2	6,811.6	47,177.0

To answer the above question, we use some secondary data, in-depth interview and indirect observation in selected SEZ area in Malaysia. In this case, we choose SEZ area in Bayan Lepas Penang because of historical value and impressive achievement, which are:

1. Bayan Lepas, Penang was the first free trade zone to be set up in Malaysia in 1972 (presentation Custom Penang, April 2011).
2. In 2011, Penang acknowledged as the highest SEZ contribution in Malaysia (see Table 1).
3. Due to the increasing investment and manufacturing activities in Penang, Malaysian Director of Labour Department (Rahmat Ismail) reported that there were over 5,500 job vacancies available in Penang on April 2011. Those vacancies mostly came from manufacturing, services, retail, wholesale, hospitality and tourism (Star newspaper, April 2011). This impressive number confirms the success of Penang as SEZ area.

Methodology

The aim of this study is to gain an insight on the FDI performance of Malaysia and their strategic imperative in attracting foreign investment. We strive to answer the following question:

1. How is the macro competitiveness and FDI performance of Malaysia?
2. What is the strategy of Malaysia government in attracting FDI in their country?
3. What is investor opinion about Malaysia?

Instead of observation in SEZ area, we also conducted in-depth interview to the Malaysian Investment Development Agency (MIDA), Malaysian Royal Custom and investors in Penang. The usage of these three types of data collection can be seen as a part of triangulation process which hopefully can increase the reliability and validity of the data. The list of interview can be seen in Table 2.

Table 2: List of interviews in Penang

Date	Duration Interview	ofRespondent
April 25 th 2011	14 Hours	MIDA Penang
April 25 th 2011	14 hours	Malaysian Royal Custom
April 26 th 2011	13,5 hours	Benchmark
April 26 th 2011	13.5 Hours	Venture Electronic Services (Sdn) Bhd
April 27 th 2011	13.5 Hours	Inventec Electronics Sdn Bhd
April 27 th 2011	13 Hours	Kobay Technology Sdn. Bhd.
April 27 th 2011	11.5 hours	PSDC (training centre located in SEZ Penang)
April 28 th 2011	13,5 hours	Daktronics (a company established by the ministry of finance to ensure that knowledge transfer retain in Malaysia)

Penang as Centre of Manufacturing in Malaysia

In 2010, Penang became the top manufacturing investment in Malaysia for the first time in history with RM12.2 billion investment. It was reported that 26% country investment in Malaysia is comes from Penang. This is a marvelous and incredible achievement for the second smallest state in Malaysia without any natural resources. Penang topped manufacturing investment for the second year running with RM9.1 billion surpassing the targeted RM6.1 billion (Eng, 2012).

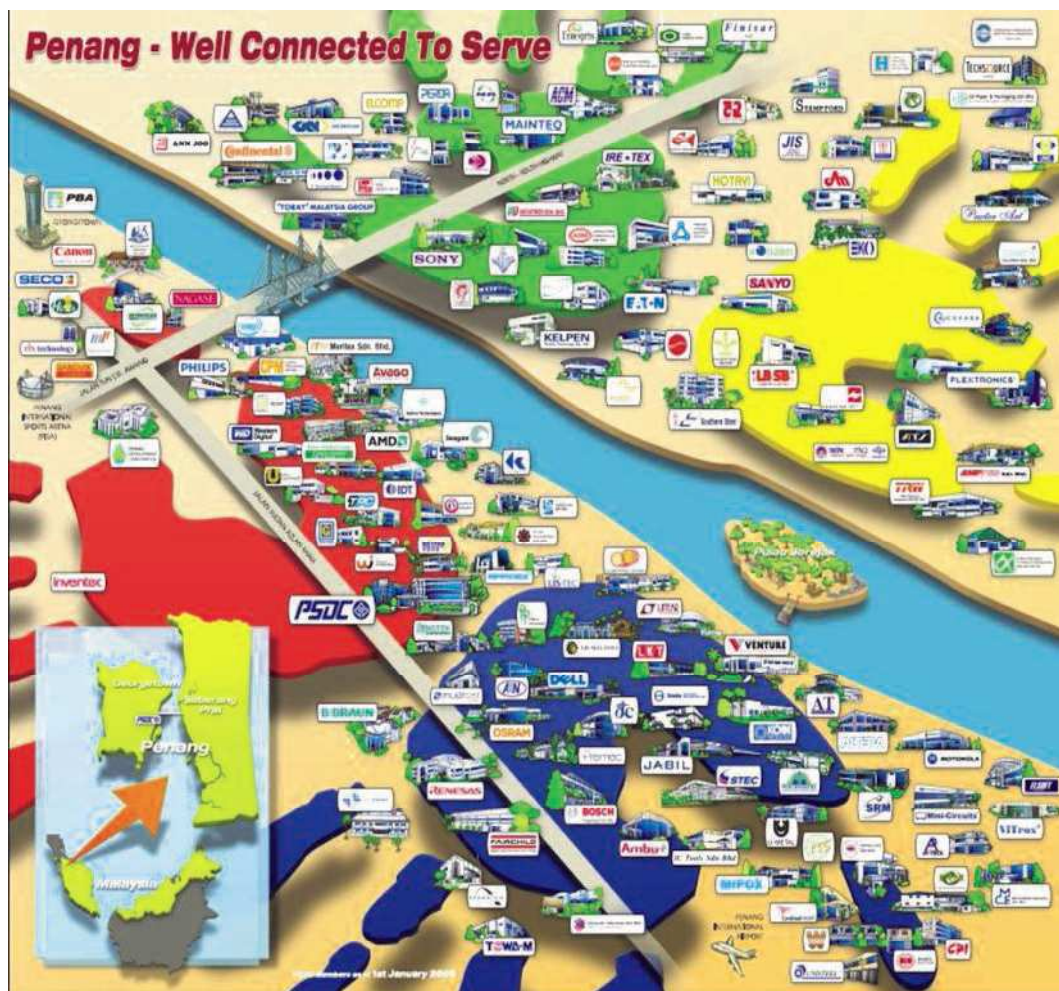
From only having one SEZ in 1972, Bayan Lepas Penang is now managing 7 zones which consists of four industrial estate free zone and three non free zone. There are 22 companies in phase one, 10 companies in phase two, 48 companies in phase three (interview with Custom Penang, 2011). Most of the tenant are coming from manufacturing sectors (50,50%) and 45,8% are from services industry (45,8%) (Interview with Invest Penang).

With this composition and their focus on high tech electronic, it is not surprising that Penang is now recognised as the Silicon Valley of the East.

Penang SEZs started to grow up more than other SEZ in Malaysia when the government invited 8 big electronic companies to make a business in Malaysia. Intel, Bosch, Agilent Technologies, AMD, Fairchild, Renesas electronic, Osram, and Clarion are 8 pioneers electronic industry in Penang since 1972. They were called as 8 Samurai. From that point onward, the supporting companies came in and supply chain has been organically develop which ultimately provide a significant economic growth to the region.

“Political stability, government support, and capable workforce have motivated 8 pioneer MNCs to continue operating in Penang for 39 years. The eight Samurai can encourage many top MNCs in the world to establish their plant in Penang.

Picture 1. SEZ in Penang



There are now more than 300 foreign companies in Penang, such as Singapore, Japan, Taiwan, and US. Every year investment increases and the biggest country investors also change." (MIDA Penang, 2011)

The above quote highlight the fact that anchor companies play a disproportionately large role in seeding and upgrading clusters, acting as a magnet for other companies and supporting projects that improve the business environment.

The Key Success Factor of SEZs in Malaysia

Malaysia is the first country in Asia that ready to make Special Economic Zones (SEZs) in 1971 compare with Thailand (1972), China (1979), and Indonesia (1986) (FIAS, April 2008) SEZs in Malaysia have been divided into some regions, such as Kuantan, Johor, Gabon, Penang, and Kuala Lumpur. Every region has different characteristic of input factors.

For example, Kuantan is well-gifted with natural resources such as oil, gas, and petrochemical. Malaysia as a whole has many natural resources in areas like agriculture (palm oil, natural rubber, sawn timber, sawn logs, pepper, cocoa, and pineapple), minerals, and forestry (<http://www.tradechakra.com/economy/malaysia/natural-resources-in-malaysia-199.php>).

Nevertheless, the government realizes that relying only to the abundant of natural resources is not enough therefore they have tried to develop strategic competence based on the development of knowledge and education, skill of human resources, cluster strategy. In this session, we will discuss each of those important variables that provide unique value of SEZ areas in Malaysia.

Human Resource & Transfer of Knowledge

Malaysian government place human resource as an eminent role and the driving factors of industry competitiveness. Malaysia total population in July 2011, is 28,728,607 people with 12,693,000 labour force. The unemployment rate in there was last reported at 3,3 percent or there is 412,600 in September, 2011 (Principal Statistics of Labor Force, Malaysia, October 2011). Fortunately, Malaysian special economic zones have been able to become the driving force in building up industrial capacity which eventually provides positive impact in developing job creation.

For example ECER (East Coast Economic Region) as one of SEZs in Malaysia has been able to create 560.000 new jobs by the year 2020 under the ECER Master Plan (East Coast Economic Development Council, 2009). As a result, Malaysian Human Development Index (HDI) has been categorised as a high human development country (57th rank) in 2010 which eventually the best HDI compare to China (89th rank), Thailand (92th rank), and Indonesia (108th rank). These three countries still categories as medium human development country. To develop their human resource, Malaysia established Pembangunan Sumber Manusia Berhad (PSMB) who designs national human resource development.

Recognising the strategic role and value of human resource, Malaysian government try to focus on how to empower their citizen to be a valuable employee. For example, in Penang they formed a talent development institution so-called PSDC which was established in May 1989 by using a tripartite model: industry, government, and academia.

During our visit on April 2011, it was reveled that PSDC consists of 156 members companies. Each member contributes RM 5.000-20.000 which is depending on the amount of employee (this is one time installment). PSDC provide facility for training, consultancy, academy development, and services. Other states in Malaysia used the PSDC concept to set up their own skills centre. To date, there are 11 skills development centre out of 13 states in Malaysia, with PSDC being the first to set up (see Table 3).

PSDC can be categorised as a unique non profit organisation not only because they developed base on tripartite partnership but also the fact that competing companies pool their resources to fund it. Our interview with PSDC management shows an interesting view on how they could leverage their competitiveness:

"PSDC is a disruptive innovation which plays an important role in HRD. We are supported by many supporting programme such as incentive from Malaysian government for firms who conduct training to their employee. Malaysian government would reimburse 20% of the course fee into employers' levy accounts after the completion of training under Malaysia Training Program and so on." (PSDC Management, 2011)

Table 3. Skill Development Centre in Malaysia , Source: <http://www.psd.org.my>

STATE	SKILLS DEVELOPMENT CENTRE	YEAR
Penang	PSDC	Penang Skills Development Centre
Selangor	SHRDC	Selangor Human Resource Development Centre
Negeri Sembilan	NSSDC	Negeri Sembilan Skills Development Centre
Kedah	KISMEC	Kedah Industrial Skills and Management Development Centre
Perak	PESDC	Perak Entrepreneur and Skills Development Centre
Johor	PUSPATRI	Johor Skills Development Centre
Terengganu	TATI	Terengganu Advanced Technical Institute
Sarawak	PPKS	Sarawak Skills Development Centre
Malacca	MISDC	Malacca Industrial Skills Development Centre
Pahang	PSDC	Pahang Skills Development Centre Berhad
Terengganu	TESDEC	Terengganu Skills Development Centre Berhad
Sabah	SSTC	Sabah Skills and Technology Centre

Indeed, knowledge and expertise of employees need to be seen as a critical strategic resource and organizations have to explore ways in retaining them. Nevertheless, capturing knowledge particularly tacit knowledge has been one of the main challenges in knowledge management. Therefore, PSDC programme also include internship in their company member, sharing knowledge from company expert, a joint laboratory, and so on.

Malaysia apparently do not want their country to be exploited and only become a place of investment. To ensure there is transfer of knowledge, Malaysian government would not give permission for investment to companies that do not have a clear transfer of knowledge programme for local employee. This is reflected in the following quote:

“When a company want to build their business in Malaysia, they must fill a form and agree with our human resource policy which ensure that there is a transfer of knowledge to local people such as submitting proposal of training skill from their

company to Malaysian employee, give opportunity for local employee in their project, providing information about how many expatriates will be employed, their qualification, etc.”
(Director of MIDA Penang, 2011).

Basically on the job training for local citizen is a must. The main idea of this policy is to protect and empower local employee so that they can improve their skill and capability in certain industry. After companies established in Malaysia for certain period, depend on the type of industry, those companies must be localized. Localized means that at the end all employees should be Malaysian citizen. Figure 2 shows government policy in developing SEZ which is based on knowledge and education as the centre of SEZs model. Knowledge Transfer Program Committee of Ministry of Higher Education Malaysia has established Knowledge Transfer Program (KTP) as a critical project agenda to develop community and industry. The aim of this program is to solve demand for knowledge workers which eventually will be increased in a high income economy.

Figure 2. Special Economic Zones (SEZs) Model. Source: <http://www.ecerdc.com.my>



KTP grant scheme phase 1 (2011-2012) initiate to recognises a broad range of activities to support mutually beneficial collaboration between universities, industries, and communities such as government agencies, non-government organisation (NGOs), or public sector (KTP, 2011).

It also provides the platform for the exchange of intellectual property, expertise, learning and skills between the stakeholders (see Figure 3).

The forms of interactions may include joint research, education, training, etc. To successfully implement those programme, they established Public Higher Education Institutions (IPTA) which should be effectively engaged with industry and community towards mutually beneficial initiatives through role played by:

- Academia: able to incorporate relevant and up to date knowledge from industry and the community into their teaching, learning, research and consultancy activities.
- Industry : can utilize the resources of IPTA to enhance their business capability and economic activities
- Community: can benefit from the knowledge generated in IPTA to improve quality of life within the community.
- Graduate/Postgraduate Intern: enhance their personal and professional development.

Figure 3. Model Implementation of KTP, Source: Knowledge Transfer Programme Committee (2011)



The above strategic alliances between related stakeholders provide a superb learning environment that has been positively acknowledged by investors:

"Penang provide cost effective and vibrant business environment. We don't have to set up the training here, and go back the home country....everything is available here.
(Venture Penang, 2011)

A more thorough insight expressed by Benchmark:

"Since Penang has been manufacturing design operational for multinational MNC, we have a lot of talented engineers. Find expert is also very easy, because colleges are trained what is needed, so it is easy to fit in at technology requirement"
(Benchmark, 2011)

The existence of electronic clusters in Penang made knowledge, HRD and innovation a necessary component to maintain the competitive advantage of state and region.

The increasing input of knowledge into production and acquisition of new knowledge will create a new „epistemic landscape“ with a new architecture of knowledge production and innovation (Evers, 2011). Such an epistemic landscape consists of

- a concentration of knowledge workers and highly-educated manpower,
- Institutions of higher learning and research
- companies with strong R&D an ICT backbone

By improving the quality of education and expanding the learning opportunities and facilities, Malaysia has been able to generate a pool of specialized skills and knowledge workers that can serve the man power needs of existing and future industries.

Malaysian Cluster Strategy

Former studies have shown that industrial clusters enhance the competitive advantage of states or regions (Porter and Bryden, 2007, Wahyuni et al. 2011). Clustering of related industries reduces transaction costs, stimulates innovations and drives development. Silicon Valley in California or the automotive cluster of Stuttgart, Germany is examples of successful clusters.

What makes a cluster successful? A number of important factors include: the availability of venture capital; critical mass; technical infrastructure; presence of higher education and research institutions; entrepreneurial drive; influence of champions; presence of an anchor firm(s); networks and quality of linkages; social capital; and, diversity.

An intriguing aspect is that the factors that distinguish 'over achieving' from 'under achieving' clusters are so-called intangible assets. Clusters possessing strong inter-firm relationships, trust and social capital are more competitive and dynamic. According to Enright (1999), 'overachieving' clusters are aware of the interdependence of their players and, in essence, produce more than the sum of their parts.

The important of eminent cluster shows in the following quote:

"We invest in Penang because of several reasons: 1) the dynamic growing industrial cluster, nearby suppliers and big customer such as HP, Acer, etc. If one big company invest here logically speaking other related company will come here as well .2) Easy to search skill people, good medical, and high tech. 3) Stable and progressive government. 4) Developed infrastructure (close to airport, port, Singapore) which make the movement of goods very fast and efficient. 5) custom immigration is very supporting. Government have database online, even the police check the criminal. 6) Well educated, multilingual work force that have good communication and skill."
(Venture Penang, 2011)

"The existence of Intel, Motorola, and other MNC in Penang are very important for us because our intention is to support them. Cost of Singapore is increased. Nobody goes to China because Intellectual property. Malaysia has very good law for manufacturing companies like us. Shipping from Penang to California only takes maximum 2 days with very low risk (theft, high jacking, etc.),"
(Benchmark, 2011)

The above two quotes show the intangible aspects of Penang. They basically implement a cluster-based Manufacturing strategy which involves two basic thrusts: the move along the value chain to increase value added at either end of the chain and the shift of the entire value chain to a higher level thereby increasing value-added at every point along the value chain (EPU, 1996, p.31).

Malaysia tries to improve local supply chain to support big foreign companies in SEZs area by developing a database, regular meeting, seminar, and training. To get right human resources for companies, Malaysia also arrange job matching programme.

This strong value chain will not be successful if existing companies do not actively increase value in their activity, as shown in the following quote:

"At the beginning Quality assurance came from us but then the freight cost has been increased. We tried to localize value chain so that the cost will be lower and the lead time will be shorter. We developed strategic alliances with other company to build strong value chain."
(Venture, 2011)

Although its clear that Malaysia has developed their SEZ using strategic cluster, interestingly their SEZs are not exclusive. For example, in the middle of electronic clusters in Bayan Lepas there are also Diamond Company which is indeed unrelated with surrounded activities. During our interview, our sources from MIDA said,

"Malaysia allows all types of investment do not matter whether the industry is big or small. Infrastructure is provided and controlled by the government, except the logistic arranged by private sector. Our government do not only take care the business, such as tax incentive, etc. but also take care investor's family, such as established international schools for investors' children and other facilities."

The above analysis clearly shows the eminent role of government support, educational and research institutions (colleges and universities), non-profit organizations and trade associations all play important roles in cluster development and have a catalytic effect on clusters.

Anchor companies play a disproportionately large role in seeding and upgrading clusters, acting as a magnet for other companies and supporting projects that improve the business environment. Educational and research institutions play pivotal roles in cluster development. It is worth noting that the majority of clusters either originated at educational institutes or in close proximity to universities. Community colleges and vocational apprenticeship training centres produce the specialized workforce essential to the cluster's success.

Several studies about Penang indicated that this city has the potential to change from an industrial cluster to a knowledge cluster (Evers, 2011) For this purpose Penang has reinvented itself as a "knowledge hub". Knowledge clusters are agglomerations of organizations that are production-oriented. Their production is primarily directed to knowledge as output or input. Knowledge clusters have the organizational capability to drive innovations and create new industries. Examples for organizations in knowledge clusters are universities and colleges, research institutions, think tanks, government research agencies and knowledge intensive firms.

Knowledge hubs are local innovation systems that are nodes in networks of knowledge production and knowledge sharing. They are characterized by high connectedness and high internal and external networking and knowledge sharing capabilities.

As meeting points of communities of knowledge and interest, knowledge hubs fulfill three major functions: to generate knowledge, to transfer knowledge to sites of application; and to transmit knowledge to other people through education and training.

"Penang Science Council have developed CSR together with companies. For example: Motorola (sustainable, education, learning, very strong in training), Intel (innovation & research), Braun (life science medical health), and so on. Government initiate the project and companies will do it."
Invest Penang, 2011)

Government also provide incentives to stimulate private sector involvement in the productivity-driven strategy. Therefore, a series of governmental technology-policy related measures were introduced (Rasiah, 1998), such as in Multi Media Super Corridor companies who enjoy lots of incentive due to knowledge driven strategy.

Input Factors

Looking the input factors, in fact it is quite interesting to see that most of our respondents do not mention the availability of resources as one their stimulating factors in choosing Penang as a place for investment, which is shown at the following quote:

"Accessibility of raw material in Penang is not easier than Singapore. The materials are mostly coming from other countries like China and Singapore. In fact, most of them we purchase it from Singapore but it is not originally coming from Singapore."
(Kobay, 2012)

Despite lack of natural resources, apparently well developed infrastructure has become a complementary rewarding variable.

Malaysia's persistent in driving and upgrading its infrastructure has resulted in one of the well-developed infrastructure among the newly industrializing countries of Asia.

Malaysia has invested effectively in infrastructure and has excellent transportation which make Global Competitiveness Index (GCI) marked Malaysia in 23th position from 125 countries with score 5,04. (2007).

Network of highways, efficient seaports, international airports, developed industrial parks are other physical infrastructure that undoubtedly support SEZs effectiveness. Malaysia's central location in the Asia Pacific region makes it an ideal gateway to Asia.

"Cost of Singapore is increased. Nobody goes to China because of intellectual property. Malaysia has very good law of intellectual property and infrastructure for manufacturing company like us. To ship from Penang to California maximum is only take 2 days with a low cost and risk (theft, high rejection, etc.)"
(Benchmark, 2012)

The other input factor that can encourage growth of SEZs in Malaysia is administration infrastructure. Medium-term economic planning in Malaysia has been effected through a series of five-year plans, and the country's relatively high-quality public administration has allowed for effective implementation of its development policies and programs.

Malaysia also set up a one-stop shop hosting the company registry, the Inland Revenue Board, customs, financial institutions, the pension and social security agencies. Electronic systems that have been emplaced in many areas have significantly reduced administrative costs.

Malaysia's company registry invested \$12.7 million in a sophisticated registration system over 5 years. The investment was fully covered by fees generated by the registry.

In 3 years after the reform, the number of registered businesses increased by 19%—and the compliance rate for filing annual tax returns rose from 28% to 91% (Sarunhanjaya Syarikat Malaysia, Companies Commission of Malaysia)

Within 6 weeks after the introduction of the new system, 5,439 applications were recorded online. This new system reduced administrative costs by 71.3%, saving €10.2 million a year. Some reformers offer incentives to use e-systems. Malaysia reduced company registration fees as part of the government's economic stimulus package, with the expected benefit being the registration of 320,000 new businesses in 2009. I

n East Asia and Pacific region, Malaysia supports cut filing and service time by 15 days by adding administrative staff to deal with incoming cases and setting stricter deadlines. It also improved caseload allocation by creating a fast track in the commercial division of the Kuala Lumpur high court, to deal exclusively with interlocutory matters (IFC, 2010).

Government's Roles

The impressive achievement of SEZs in Malaysia cannot be separated from the eminent role of MIDA (Malaysian Investment Development Authority) which is the government's principal agency for the promotion of the manufacturing and services sectors in Malaysia.

"Government of Malaysia treated us very well"
(Kobay, 2011)

The wide range of services provided by MIDA includes providing information on the opportunities for investments, as well as facilitating companies which are looking for joint venture partners. MIDA function is explained in Table 14

Table 4. Functions of MIDA, Source : MIDA

Promotion	<ul style="list-style-type: none"> • Foreign direct investment, Domestic investment. • Business matching through E-Connect. • Manufacturing services, Supporting value chain
Evaluation	<ul style="list-style-type: none"> • Manufacturing licenses, Tax incentive, Duty exemption. • Expatriate posts. • OHQ, RDC, IPC, and R&D status, Transfer knowledge • Strategic Place.
Planning	<ul style="list-style-type: none"> • Planning for industrial development. • Recommended policies and strategies on industrial promotion and development. • Formulation of strategies, programs, and initiatives for international economic cooperation.
Follow up / Monitoring	<ul style="list-style-type: none"> • Assist company in the implementation and operation of their project. • Facilitate and exchange & co-ordination among institutions engaged in or connected with industrial development. • Advisory services.

MIDA also assists companies interested in venturing abroad for business opportunities. For example, when their current investor would like to expand their market abroad, MIDA can help them as well. As shown in the following quote:

"When investors encounter any problem, they can contact MIDA at first to help so that they feel save to do business in Malaysia. To further enhance MIDA's role in assisting investors, senior representatives from key government agencies are stationed at MIDA's headquarters in Kuala Lumpur to advise investors on government policies and procedures. These representatives include officials from Department of Labour, Immigration Department, Royal Malaysian Customs, Department of Environment, Tenaga Nasional Berhad, and Telekom Malaysia Berhad".
(MIDA Penang, 2011)

During our interview, the director of MIDA Penang also said that they have constant efforts to obtain feedback from the business community through channels of consultation such as regular government-private sector dialogues.

These allow the various business communities to air their views and to contribute towards the formulation of government policies which concern them.

“Government policy is very friendly business. Therefore, to decrease complain and enhance our mutual understanding, there is regular meeting between zone manager, custom, and company.”
(Head of Custom Penang, 2011)

Since there is a close relationship between investors and government officers, Malaysian government also aware of the possibilities of corruption or abuse of power. To reduce these possibilities, they always try to keep everything transparent and professional.

“Here is our strategy to keep the officials clean : there is rotation and transfer for the official in certain period. Anti corruption agency attack certain departments which are prudent with corruption. They conduct internal control for “hot spot, hot staff, and hot job”. They investigate everything and report it if there is any indication”
(Head of Custom Penang, 2011).

Table 5: Doing Business in Malaysia, Source: Economic overview, 2011. www.mida.gov.my

Indicators	Malaysia	
	2010 Rank	2011 Rank
Doing business rank	23	21
Starting a Business	116	113
Dealing with Construction Permits	109	108
Registering Property	65	60
Getting Credit	1	1
Protecting Investors	4	4
Paying Taxes	24	23
Trading Across Borders	37	37
Enforcing contracts	59	59
Closing a Business	57	55

Table 5 shows the rank of doing business in Malaysia which upgraded from 23th (2010) to 21th (2011).

Some variables that successfully accelerated Malaysian rank are: starting business, environment regulatory, property registration, tax incentive for investor, and closing business.

Active steps to reduce the regulatory burdens and streamline the business environment with the objective of raising investment and growth are the part of regulatory environment in Malaysia. The government have taken steps to increase the supply of skilled workers and enhance the employability of the human resources.

When there is company outside the zone, they can get the same facilities with company inside the zone by applying to custom agency to get exemption facility.

Restrictions of doing business in Malaysia are ownership of industrial land which is usually on a leasehold basis, ranging from 30 to 99 years. However, freehold land is also available for industrial purposes. Shortages of skilled workers and regulatory burdens are the key adverse features of the investment climate.

“Firms note that the difficulty in hiring local workers, the regulations for hiring foreign workers, and skill shortages are the reasons why they are understaffed.”

Moreover, the fact that many electronics companies located in the same compound result in a strive competition. Retaining the best employee become a daunting challenge in this region.

Incentive

Government incentive for investors also one of the variable that upgraded rank of doing business in Malaysia (MIDA, 2011). In Malaysia, incentive divided by two categories: tax incentive and non tax incentive. The type of tax incentives are:

- Pioneer Status gives exempt on 70% of income for 5 years
- Pioneer Plus gives 100% exempt for 5 or 10 years
- Investment Tax Allowance, deduct 60% of investment against 70% of income
- Investment Tax Allowance, deduct 100% of investment against 100% of income
- FIZs have tax incentives plus duty free import on equipment and raw materials

A set of non tax incentive will also be available to encourage investors' participation (although the policy is different from one SEZ to other SEZ regions. Government also provide special incentives for companies who invest in the knowledge-intensive activities.

They fully aware that they face global competition to get investors from other country as well. Therefore, an attractive incentive and most importantly value added of their location should be profound which is indicated in the following interview:

"We realize that there is a tight competition in attracting FDI. In this sense, we divide competition in two types: inside competition and outside competition. Inside competition occur when investors want to move from one SEZ to other SEZ in Malaysia. If investors in Malaysia want to move to other zone, like from Penang to Johor, they can move easily and MIDA would not defend it.

But when the competition is outside Malaysia, the story is different. If input factors of production in Malaysia are difficult than others, Malaysia still has other bargaining power for investor than other country. Our bargaining power is expatriate regulation, strong supply chain, and excellent transportation such as direct flight to Hong Kong and China, direct ship to Singapore, etc. Government in Malaysia try to make regulation for investor as simple as possible. This is a part of our strategy on how Malaysia attracts new investors and keep current investors."
(MIDA Penang, 2011)

Since June 2003, foreign investors could hold 100% of the equity in all investments in new projects, as well as investments in expansion/diversification projects by existing companies irrespective of the level of exports and without excluding any product or activity.

Malaysia Investment Trend and Key Success Variable SEZs

From a country dependent on agriculture and primary commodities in the sixties, Malaysia has today become an export-driven economy spurred on by high technology, knowledge-based and capital-intensive industries.

The structural transformation of Malaysia's economy over the last 50 years has been spectacular.

Often dubbed the "lucky country" because of its wealth of mineral resources and fertile soils, Malaysia did not rest on its laurels but progressed from an economy dependent on agriculture and primary commodities to a manufacturing-based, export-driven economy spurred on by high technology, knowledge-based and capital-intensive industries.

Malaysia's total trade in 2008 reached RM1.19 trillion, an increase of 6.8 per cent from RM1.11 trillion in 2007. Exports increased by 9.6 per cent to RM663.51 billion in 2008 from RM605.1 billion in 2007.

The manufacturing sector accounted for 29.9% of Malaysia's GDP during the first nine months of 2008 while exports of manufactured goods made up 70.0% of the country's total exports. From being the world's largest producer of rubber and tin, Malaysia is today one of the world's leading exporters of semiconductor devices, computer hard disks, audio and video products and room air-conditioners.

Malaysia has edged up another position to rank 18th this year in the global competitiveness survey of 57 countries by the Switzerland-based Institute for Management Development (IMD) in its World Competitiveness Yearbook (WCY) 2009. Parameters of improvement in this competitiveness are economic efficiency (9th to 8th rank), business efficiency (13th to 4th rank), and government efficiency (19th to 9th rank). Malaysia competitiveness Ranking can be seen as Table 6 below.

**Table 6: World Competitiveness Ranking,
Source: World Competitiveness Report 2010
IMD.**

Countries	2009	2010
Singapore	3 rd	1 st
Hongkong	2 nd	2 nd
US	1 st	3 rd
Switzerland	4 th	4 th
Australia	7 th	5 th
Sweden	6 th	6 th
Canada	8 th	7 th
Taiwan	23 rd	8 th
Norway	11 th	9 th
Malaysia	18 th	10 th

Our interview with MIDA (April 2011) indicated that Malaysia is acknowledged as a premier investment destination due to the following reasons: recognised as the 1st for investor protection (Forbes Report, 2009); 3rd attractive location for outsourcing destination (A.T. Kearney Global Service Location Index, 2010); 10th most competitive economy in 2010 (Institute Management of Development, 2010); and 23rd for ease of doing business in 2010 (The World Bank, 2010).

To keep company stay and feel enjoyable in Penang, government not only focuses on business but also other aspects that make them feel comfortable to stay with their family. For example, there are 7 international schools for investor's children in Penang.

This small island is also furnished with international hospital, high-tech park, shopping centre, etc. George Town, the capitol city of Penang, is announced by UNESCO as the world heritage site, that in somehow provide a balance life for investor. They are not just only came to Penang for work but also for pleasure. Even investors whom invest in other state of Malaysia spend their time in Penang which make economic effect of Penang is even bigger than other.

Conclusion

This paper clearly shows that strategic location, well equipped infrastructure, transparency in custom, tax offices as well as the availability of talented human resources who have division background that suitable for electronic industry became Penang sources of their competitiveness. Penang not only has good infrastructure logistic, good education to support industry, supply chain, IT protection, transparency, government, get people experiences in electronic manufacturing, the labors can be trained to match with the industry need.

On top of that, George Town as the capitol of Penang has announced by UNESCO as a world heritage site. Thus, Penang has transformed not only a place for work but also a pleasant place to stay for investor.

This paper also highlight the eminent role of government support, educational and research institutions (colleges and universities), non-profit organizations and trade associations all play important roles in cluster development and have a catalytic effect on clusters in Malaysia.

For example, the private sector is the key to success as private sector-led initiatives are simply more successful. Anchor companies (the eight samurai) play a disproportionately large role in seeding and upgrading clusters, acting as a magnet for other companies and supporting projects that improve the business environment. Educational and research institutions play pivotal roles in cluster development. It is worth noting that the majority of clusters either originated at educational institutes or in close proximity to universities. Community colleges and vocational apprenticeship training centres produce the specialized workforce essential to the cluster's success.

The only eminent drawback came from the though competition inside clusters. High jacking the best talent became normal phenomena that made retaining the best employee becomes a daunting challenge in this region.

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Appendix 1. Profile of Companies in this research

Venture

Venture was founded in 1984 as a global electronics services provider. Headquartered in Singapore, the Group comprises about 40 companies with global clusters of excellence in South-east Asia, North Asia, America and Europe and employs more than 14,000 people worldwide.

Venture is now a leading global provider of technology services, products and solutions with established capabilities spanning marketing research, design and development, product and process engineering, design for manufacturability, supply chain management, as well as product refurbishment and technical support across a range of high-mix, high-value and complex products.

Venture expertise in software design and management, reliability engineering and product test development are indeed necessary for knowledge innovation and quality assurance in such high-tech electronic cluster.

The Group has built know-how and intellectual property with domain expertise in printing and imaging; advanced storage systems and devices; handheld interactive scanning and computing products; RF communications and network; test and measurement equipment; medical devices; retail store solution suite of products and industrial products and installations.

Benchmark Electronics, Sdn.Bhd

Benchmark Electronics is a multinational electronics design and manufacturing service provider with 21 facilities across Europe, America and Asia. Benchmark provides design and manufacturing services to Original Equipment Manufacturers (OEMs) in the medical, test & instrumentation, industrial control equipment, telecommunications, computing and military/aerospace segments.

They offer customers comprehensive integrated design and manufacturing services from initial product design to volume production and direct order fulfillment.

Kobay Technologies Bhd

Established in 1985, Kobay is 100% Malaysian company. Kobay Penang is the headquarter of Kobay's companies. They also have a subsidiary in China and Singapore. In Malaysia they have six factories: 4 in Bayan Lepas and 2 in other places.

Kobay Technologies Bhd provides comprehensive solutions for Precision Tooling, Advanced Automation Equipment, Precision Components and offers multi-disciplined services to its clients in Oil, Gas & Petrochemical industries. The parts they produce usually for oil and gas industry like equipment that go down to the sea (offshore). Those machinery parts are produced depend on customer requirement.

Fabtronic Sdn Bhd

Fabtronic was incorporated on 11 April 2007 and has been established as an outsourcing agent to AMD (Advanced Micro Devices), a multinational company in the semi-conductor industry. Initiate by Malaysian government, 70 percent of Fabtronic stock owned by Ministry of Finance.

AMD was then approached to be involved in the collaboration to establish Fabtronic.. This collaboration can be seen as an incentive mechanism to AMD, which is one of the 8 pioneers that established its operations since 1972, to further incentivise it to expand its business via a win-win approach. Other than as an incentive mechanism, this initiative also has other objectives such as:

- To enhance the skill sets and job opportunities for Malaysians in the semiconductor industry via the creation of employment opportunities;
- To create a conducive environment/ skills/ knowledge/ technology/ work culture transfer; and
- To create business opportunities in related support service.

With the above task at hand, a business model based on "factory-in-a-factory" concept was formulated. In this model, AMD outsource some of its production functions to Fabtronic which is carrying out the production within the AMD's own premises. To ensure there is transfer of knowledge, Fabtronics is supported by 100% Malaysian young employee.
