

REVISITING THE 'SILICONISATION OF ASIA: INDUSTRIAL POLICIES AND CREATIVE CLUSTER IN MALAYSIA

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ABSTRACT

This paper explores the relationship between industrial policies and creative cluster in Malaysia. While most developed countries have leveraged the benefits of creativity and innovation for high-income economy, developing countries, like Malaysia, otherwise have been struggling to replicate the same success. Responding to this polemic, the article first frames the discussion on industrial policies and creative cluster with a reference to the spatial concept called, 'the geography of innovation'. It is later followed with a specific historical review on the industrial policies and creative cluster in Malaysia since her independence in 1957. The review then becomes a basis for further reflecting the development of Cyberjaya city, a newly city aimed to be the national model of creative cluster. The article calls for more specific and contextualized researches on the issues of spatiality between the industrial policies and creative cluster, particularly in Malaysia as well as in the regional level of Southeast Asia that can benefit policy practitioners, economists, urban planners, academics and researchers alike.

Keywords: : Industrial policies; Creative cluster; Geography of innovation; Siliconisation of Asia; Urbanisation.

1. INTRODUCTION

[T]he production, reproduction and reconfiguration of space have always been central to understanding the political economy of capitalism. For us [as geographers], the contemporary form of globalization is nothing more than yet another round in the capitalist production and reconstruction of space. [...] The question is not, therefore, how globalization has affected geography but how these distinctive geographical processes of the production and reconfiguration of space have created the specific conditions of contemporary globalization. (Harvey, 2001: 23-24).

The advancement of disruptive innovation renegotiates the habitual understanding of creativity. In the text *Creativity on Demand: Historical Approaches and Future Trends*, published in 2010, the psychologist Gerard J. Puccio and his colleagues argue that by the year 2015, technology will change the field of creativity in "unimaginable ways" (2010: 156). They were right. Since 2010, drone becomes very popular, opening up new horizons in the field of photography and videography. Drone technology disrupts traditional delivery business system while inviting heated debate on the issues of privacy and surveillance activities. The messaging application WhatsApp was released in January 2010 followed by Instagram ten months later. The technology company Google Inc. (now Alphabet Inc.) was awarded the intellectual property (IP) rights for self-driving car in 2012, and since then more radical experiments have been conducting (BBC, 2012). In 2014, Apple Inc. introduced the designs of the Apple Watch thus paving the way for the advancement of wearable technologies (Apple, 2014). And, in the end of 2015, the tech entrepreneurs Elon Musk of Tesla and Mark Zuckerberg of

Facebook invested \$US 1 billion for the development of open-source artificial intelligence (Del Prado, 2015). Most recently, Netflix launched a global on-line media streaming service covering more than 130 countries worldwide (Netflix, 2016). These are some stories which describe an unprecedented moment of what some scholars might say the Fourth Industrial Revolution, partly, due to the rampant technologies of the Internet of Things (IoT), 3D printing, augmented reality and cloud computing.

The dramatic boom of information and communication technologies (ICT) since the early 21st century has acknowledged creativity as a global commodity. Celebrating the economic diversity of choice, creative industries expand the market value of local culture and talent in response to global demands. The American economist Tyler Cowen refers to this as 'creative destruction'. As he puts it, "[w]e receive a desirable menu of choice because many cultural producers and consumers place intrinsic value on difference" (2002: 132). Cowen goes on to emphasize that the creative destruction may improve small and medium enterprises (SMEs) while attracting foreign direct investment (FDI). From a policy perspective, such creative destruction highlights the importance of creativity for boosting economy particularly in today's increasingly global and urbanizing world. Responding to this, prominent urban theorists such as Manuel Castells, Edward Glaeser, Andy Pratt and Richard Florida suggest strategic initiatives to bind together the relationships between creativity, innovation, urbanisation and economic development. Their ideas and concepts like Castells' Network Society, Pratt's Creative Industries and Florida's Creative City celebrate the relationships by focusing on the advantages of digital economy, cultural diversity and urban density. Creativity as such is considered not simply about visual aesthetics and art performance. Rather, it speaks of an interrelated field of technology and development studies that includes the issues of copyright, patent, trademark and multidisciplinary designs. It is within this context that the creativity of the 21st century suggests a major shift from cultural policy to an industrial policy framework, which becomes a key concern for this article. As such, I conducted a narrative review on selected policy documents and publications that relate creativity with the broader issues of urbanization and national development. Bridging the relationship between creativity and industrial policy, I frame the following discussion with a reference to a spatial concept called 'the geography of innovation'.

2. THE GEOGRAPHY OF INNOVATION

The term 'the geography of innovation' was coined by the American policy scholar Maryann P. Feldman back in 1994 (Feldman, 1994). It refers to an idea that geographic spatialisation plays an important role for promoting

innovation culture. For Feldman, "innovation is in itself a geographic process—a function of the knowledge resources that are embodied in the technological infrastructure of specific places" (ibid: 93). Feldman argues that the concentration of business firms, companies, and research and development (R&D) institutes may efficiently mobilize technical resources and knowledge that are essential to the innovation process. Such a concentration in turn provides a large incubatory space for pooling together researchers, inventors, scientists, artists, entrepreneurs, venture capitalists and other agents of innovation. They work together; communicating and exchanging their expertise and findings while encouraging new ideas to flourish. Ideally, the geography of innovation optimizes benefits both intellectually and economically through systematic networks and proximal organizations between creative individuals, business enterprises and educational institutions. In this respect, Feldman instantiates the successful models of the geography of innovation in the 1980s, namely, Silicon Valley in California, Route 128 in Massachusetts and Research Triangle Park in North Carolina. Feldman's studies thus open up a new perspective in understanding innovation: in terms of spaces and places instead of simply the heroic narratives on innovators and spectacular products.

In recent years, numbers of studies have been conducted to investigate the benefits of the geography of innovation. In the United States, for instance, the policy researchers Bruce Katz and Julie Wagner of Brookings Institution published a 2014 report entitled *The Rise of Innovation Districts: A New Geography of Innovation in America* (Katz & Wagner, 2014). As the title suggests, the report highlights the burgeoning emergence of innovation districts across the states besides promoting innovation culture as an engine for economic growth. The report also emphasizes the diversity of innovation districts in the United States that goes beyond the archetypal reference to Silicon Valley. "Innovation districts", Katz and Wagner assert, "constitute the ultimate mash up of entrepreneurs and educational institutions, startups and schools, mixed-use development and medical innovations, bike-sharing and bankable investments—all connected by transit, powered by clean energy, wired for digital technology, and fueled by caffeine" (2014: 2). The statement seems to offer a comprehensive outlook, covering at once the aspects of planning, social nature and sustainable lifestyle in the design of innovation district.

Katz and Wagner suggest three current models of innovation districts in the United States. First, the "anchor plus" model which refers to the downtowns and mid-towns of central cities. The model describes large scale mixed-use development that is centered around major anchor institutions and a rich base of related firms, entrepreneurs and spin-off companies involved in the commercialization of innovation. Some examples of the model include

Kendall Square in Cambridge near to the ‘major anchor’ of the Massachusetts Institute of Technology (MIT), Philadelphia’s University City anchored by three universities: The University of Pennsylvania, Drexel University and the University City Science Center, and Midtown Atlanta around Georgia Tech University. The second model is the “re-imagined urban areas”. It is often found near or along historic waterfronts where industrial or warehouse districts are undergoing a physical and economic transformation. Early startups prefer to settle in this area due to high rent and expensive cost of living in central cities. The re-imagined urban areas is best exemplified by San Francisco’s Mission Bay. The bay is home for successful startups like Pinterest, Zynga, Yelp, Square, and Salesforce. The third model is “urbanized science park” which commonly found in suburban and exurban areas. Most old research parks in America, according to Katz and Wagner, were designed based on ‘isolated’ car-dependent environment. Such design is no longer relevant today for spurring innovation. The old research parks are then ‘rejuvenated’ so as to attract younger entrepreneurs and highly talented workers. An example is the new development of masterplan for the historic North Carolina’s Research Triangle Park in 2012. Based on these three models—of: anchor plus; re-imagined urban areas, and; urbanized science park, Katz and Wagner urge American mayors to take innovation issues seriously while proposing future development planning.

Similar concern for considering innovation issues in urban development has been echoed by Florida. In the report *Startup City: The Urban Shift in Venture Capital and High Technology*, published in 2014, Florida argues that denser, livelier and less car-dependent urban area is a fertile environment for innovation culture (Florida, 2014). Formulating his argument, Florida maps venture capital and startup activity across the United States. The mapping indicates the greatest volume and concentration of venture capital investment on the East and West Coasts, along the Boston-New York-Washington (BosWash) corridor and from the San Francisco Bay Area through Southern California. Digging deeper, the mapping shows that the venture investment tends to focus in main cities facilitated with efficient public transportation and vibrant lifestyle. New York, Austin, San Diego, Washington DC and Chicago score the high concentrations of venture investment. Besides the focal concentration in main cities, there is also an increasing interest in suburban areas. What appears to be emerging based on Florida’s observation is that smaller startups prefer to settle in cities while established startups which require bigger spaces and larger campuses turn to the suburbs, where land is relatively cheaper and more available. From this perspective, Florida claims that startup activity and venture investment in the United States describe a

dual pattern of geographic shift: on the one hand, there is a shift to urban centers; yet on the other hand there is a growing tendency towards what he terms, the “walkable suburbs” (2014: 49).

The discussions on the geography of innovation has also attracted interest outside the United States. In the United Kingdom (UK), according to the latest survey published by the Department for Culture, Media and Sport (DCMS), the creative industries contributed £84.1 billion to the British economy in 2014, grew by almost 9 percent from its previous year (DCMS, 2016). “IT, software and computer services” remains the largest sector of the UK’s creative industries followed by other professions such as advertising, film, publishing, architecture and crafts.

Looking at the prospects of the UK’s creative industries, several policies have been proposed. The British think tank Nesta, for instance, in the report *A Manifesto for the Creative Economy* outlines 10 policy recommendations in order to boost the UK’s creative industries (Bakhshi, Hargreaves & Mateos-Garcia, 2013). The recommendations include: the R&D tax relief for creative businesses, the establishment of investor-friendly data on creative industries, and the enhancement of the school curriculum by integrating into one the subjects of art, design, technology and computer science. Nesta points to the collective efforts from British politicians, policy makers, industrial players and educational figures to nurture innovation culture to ensure the UK’s creative industries remain globally competitive. Supporting the efforts, the government set up the Creative Industries Federation in 2014 to further monitoring and discussing policy issues related to the UK’s creative industries.

Adopting the idea of the geography of innovation, in 2015, Nesta researchers Hasan Bakhshi, John Davies, Alan Freeman and Peter Higgs map the geographical distribution of the creative industries across the UK’s regions. The findings are documented in the report, *The Geography of the UK’s Creative and High-Tech Economies* (Bakhshi et al., 2015). According to the report, despite London indicates a massive employment and financial concentration, there is a tremendous growth in terms of creative industry activities in other UK’s regions as well. Since 2011, the creative economy grew more rapidly in the East of England, West Midlands and North East with more than 5 percent per annum respectively, compared to London by 3 percent. Also, there is an increasing proportion of the creative workforce in counties outside London like Hertfordshire, Cambridgeshire, Surrey, Bristol and Edinburgh. The mapping thus provides not only a visuo-spatial pattern. Moreover, the mapping allows planners and local authorities to reflect

current condition for harnessing the potentiality of creative industries in their development planning.

Following the United States and the United Kingdom, Singapore also has harnessed the advantages of creativity, innovation and urbanisation as a way to accelerate her economic development. In 2002, Singapore launched a national policy called the Creative Industries Development Strategy (Media Development Authority, 2002; Yue, 2006). The policy outlined a comprehensive 10-year plan spearheaded by the then Ministry of Information, Communication and the Arts (MITA) to posit Singapore as a “New Asia Creative Hub” by the year 2012. Among the plans include: an educational initiative to collaborate local universities with world leading creative institutions like the Royal College of Art London and the MIT MediaLab, financial initiatives by introducing tax incentives and funds for creative content development, and the establishment of the Design Singapore Council, a national body for managing design issues. Also, the policy calls for collective efforts between MITA and other government agencies like the Singapore Tourism Board (STB), the National Arts Council (NAC), the Singapore Broadcasting Authority (SBA), the Singapore Sports Council (SSC) and the International Enterprise Singapore (IE) so as to ensure the creative industries strategy may generate economic spin-offs for tourism, local media, sport industry and international export.

Besides the above ‘aspatial’ approaches for promoting creative industries, Singapore also adopts the idea of the geography of innovation. In the text *Beyond Networks and Relations: Towards Rethinking Creative Cluster Theory*, published in 2009, the geographer Lily Kong discusses the creative cluster issues in Singapore. Kong’s overall discussion is more theoretical in questioning the axiological concept of what she terms the “cultural creative cluster” within the non-western context of Singapore (Kong, 2009: 61). According to Kong, the cultural creative cluster in Singapore is best exemplified by the NAC Arts Housing Scheme. The scheme is an effort for promoting adaptive reuse in which old buildings, commonly disused warehouses and old shophouses, are converted into suitable housing for arts use. The buildings are leased to selected artists and non-profit art groups at highly subsidised rates. Tenants pay 10% of the rental charged by Singapore Land Authority (SLA), while the NAC pays the remaining 90%. As a result, the scheme produces numbers of ‘art belts’ across Singapore streets. These include Waterloo Street, Chinatown at Smith Street and Trengganu Street, Little India at Kerbau Road and Telok Kurau. Apart from the NAC Arts Housing Scheme, the cultural creative cluster concept can be traced in “Creative Towns”, an initiative proposed under the national project, Renaissance City 2.0 (see Media Development Authority, 2002: 17). The

Creative Towns is a collaborative commitment between government and the Singapore’s Community Development Councils (CDCs) to “unleashing the latent creativity and passion of individuals by integrating arts, culture, design, business and technology into community planning and revitalisation efforts” (ibid: vii). The government provides funding to the CDCs so that communities are facilitated with infrastructures and fusion spaces that support creative entrepreneurship and art appreciation. Kong after all emphasizes the government’s seriousness in pushing forward the full advantages of creativity, innovation and urbanisation for the development of Singapore.

The government’s efforts seem to be paid off. According to the Creative Economy Report published by the United Nations Conference on Trade and Development (UNCTAD) and the United Nations Development Programme (UNDP), Singapore has ranked among the world’s top 20 exporters of creative goods after UK and Japan in 2008 (UNCTAD & UNDP, 2010: 132). Also, by the year 2010, Singapore has successfully attracted 53 foreign media companies to set up their regional headquarters including the famous Japanese electronic games developer, Koei (UNCTAD & UNDP, 2010: 84). In 2013, the copyright industries contributed more than 6 percent to Singapore’s total Gross Domestic Product (GDP) (UNDP & UNESCO, 2013: 164). Many studies describe Singapore as one of the most innovative and creative places in the world. A study conducted by the consulting firm Solidiance, for instance, highlights Singapore as the most innovative city in Asia Pacific, ahead of Sydney, Melbourne and Hong Kong (Solidiance, 2013). NESTA considers Singapore as a highly-innovative small country following Finland and Estonia (Rae & Westlake, 2014). In 2015, Singapore has been ranked the world’s top 10 for both creative country and startup-friendly city after Silicon Valley, London and Berlin (Compass, 2015; Florida et al., 2015). And, most recently, in December 2015, Singapore has been designated a Creative City of Design by the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2015).

Overall, the idea of the geography of innovation has allowed developed countries like the United States, the United Kingdom and Singapore to accelerate their economic growth, at least in the sector of creative industries. The strategic initiatives in marrying together industrial policies and creative cluster have paved the way for the formation of “a creative innovation system”, to borrow the NESTA’s term (Bakhshi, Hargreaves & Mateos-Garcia, 2013: 47). It is a system that taps into the efficacy of knowledge creation, dissemination and commercialization in order to produce conducive business environment as well as the pool of highly competitive and talented workforces. These are aspects that the developing countries like Malaysia can learn from, which frame my discussion for the following section.

3. THE DEVELOPMENT OF INDUSTRIAL POLICIES AND CREATIVE CLUSTER IN MALAYSIA

In the context of Malaysia, the effort in fostering the 'creative innovation system' is clearly evidenced from the launch of the Knowledge-based Economy (K-based economy) Master Plan in 2002 (ISIS, 2002). It is a detailed master plan aiming to turn Malaysia from a nation that is heavily dependent on agriculture and manufacturing-based economies to "an economy in which knowledge, creativity and innovation play an ever-increasing and important role in generating and sustaining growth" (ibid: iii). In doing so, as with the United States, the United Kingdom and Singapore, Malaysia needs to leverage, among other things, the potentialities between industrial policies and the geography of innovation. To begin with, it is noteworthy to briefly discuss the historical development of industrial policies in Malaysia.

The first attempt to promote industrial policy in Malaysia has been started as early as in 1958, a year after Malaysia gained her independence (Lim, 2011: 9). Prior to the independence, during the British colonial period, Malaysia's economy primarily revolved around natural resources, as a producer and exporter of rubber and tin. The government then introduced the 1958 Pioneer Industries Ordinance which granted tax holidays to firms granted 'pioneer status' with a certain duration for tax exemption depending on the level of investment. The attempt in general proved successful particularly for attracting industries. Since then, a number of industries were established producing items such as metal products, bricks, cement, building materials, cooking oil, detergents and consumer durables. Apart from the fiscal incentives to encourage industrial development, the government also made a specific allocation for physical incentives since the first national economic plan. In the 1st Malaya Plan 1956, about 2.5 percent or \$115.8 million of the total public development expenditure had been allocated for industrial and mining development. This allocation has steadily increased over the subsequent economic plans. By the 5th Malaysia Plan (1986 – 1990), the period when Malaysia was intensively concentrated on heavy industries, the allocation raised to \$3,149.65 million or 4.56 percent of the total public development expenditure (Said, 1988). The national car project PROTON and controversial steel plant PERWAJA are some examples of the then government's commitment in heavy industries.

Another initiative to boost industrial activities in Malaysia is the establishment of industrial estates and free trade zones (FTZ). It might be said that this is an important step and an impetus for the spatial clustering of innovation in Malaysia. In the 1950s, the first industrial estate was promoted in the satellite town of Petaling Jaya, Selangor. The international consumer companies like Colgate Palmolive and Fraser and Neave (F&N) are among the early

industries in the estates later followed by multinational manufacturers such as Motorola, Panasonic and Matsushita (Sundaram, 1993). In the early 1970s, the government gazetted the Free Trade Zone Act 1971. The gazette saw the opening of Malaysia's first FTZ in Bayan Lepas, Penang. The urban planner Ghani Salleh (2000: 61) argues that the establishment of the industrial estates and FTZ is a national strategy for "industrial decentralization", a strategy to accelerate development in the poorer states beyond the metropolitan Klang Valley. To date, there are over 500 industrial estates and FTZ across Malaysia which include the Kulim Hi-Tech Industrial Park in northern Kedah, Malaysia-China Kuantan Industrial Park in eastern Pahang and Iskandar Malaysia in southern Johor (MIDA, 2016). It is undeniable that the government's commitment in promoting industrialization has changed tremendously both social and physical landscape of Malaysia. From one perspective, industrialization fosters a paradigm shift among Malaysian citizens to be more innovative and adaptable to new technologies for embracing modernity and globalization.

With the inevitable coming of globalization or the "Third Wave", to borrow Alvin Toffler's term (1980), Malaysia needs to realign her policy initiatives. The Third Wave claims, among other things, the importance of information and knowledge as a key driver for economic growth. As such, by the mid-1990s, the government began to encourage the K-based economy and identified ICT industries as a new source for wealth creation. One main initiative taken by the government then is the establishment of incubators. Concerning the need for highly skilled 'K-workers', the government aims to generate more homegrown producers instead of the end-users of technology. The incubators acts as an exploratory place for R&D activities at the institutional level. Several incubators are set up in major higher educational institutions (HEIs) and government research institutes (GRIs) which include: the USains Incubator in Bayan Lepas, Penang; the Technology Park Malaysia (TPM) Incubator in Bukit Jalil, Kuala Lumpur; the Standards and Industrial Research Institute of Malaysia (SIRIM) Incubator in Shah Alam, Selangor, and; the Malaysian Technology Development Corporation (MTDC) Incubator in three HEIs, namely, Universiti Putra Malaysia (UPM) in Serdang, Selangor; Universiti Kebangsaan Malaysia (UKM) in Bangi, Selangor, and; Universiti Teknologi Malaysia (UTM) in Skudai, Johor (Danaraj, 2011: 405). Each incubator by design form a specific 'creative cluster' that pooling together researchers, inventors, scientists, entrepreneurs and venture capitalists. I argue that these incubators reflect the idea of the geography of innovation as discussed in the previous section.

Promoting further the K-based economy initiative, in 2017, the government launched an international collaborative project with the China's conglomerate,

Alibaba Group known as the Digital Free Trade Zone (DFTZ). Located at the Kuala Lumpur International Airport (KLIA) Sepang, the project aims “to facilitate SMEs to capitalise on the convergence of exponential growth of the internet economy and cross-border e-commerce activities” (MDEC, 2017).

The above discussions describe the Malaysian government’s commitment in pushing forward the potentiality of creativity, innovation and urbanisation for economic development. To manifest the commitment, an urban scale project was developed aiming to turn a whole city into an economic hub of creative cluster. The project is called Cyberjaya.

Cyberjaya is the first ‘intelligent cybercity’ in Malaysia located midway between the KLIA international airport, the national administrative city of Putrajaya and the capital city of Kuala Lumpur (see Figure 1). It is the hub of the special economic zone Multimedia Super Corridor (MSC), an area identified by the government as the new growth for the national ICT industries. Inspired from the economic success of innovation culture, the master plan of Cyberjaya is designed to replicate Silicon Valley, a benchmark for the geography of innovation as discussed earlier.

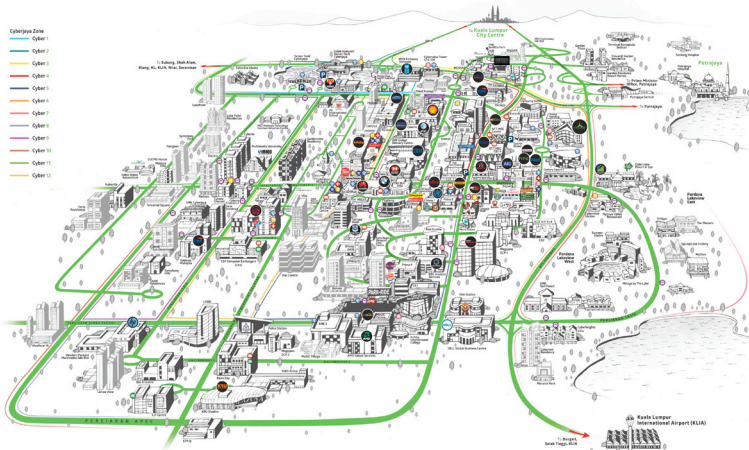


Figure 1: The ‘fun map’ of Cyberjaya which indicates the location of the city between KLIA, Putrajaya and Kuala Lumpur. (Source: Cyberview, 2015)

Cyberjaya was launched on 17 May 1997 by the Malaysian Prime Minister Datuk Seri Dr. Mahathir Mohamad. It was launched with a vision to transform an area of approximately 7,000 acres from palm oil plantation estate into “a mecca for IT companies providing operational quarters for multinationals to

direct their worldwide manufacturing and marketing activities in multimedia, as well as their production and marketing of multimedia products and services” (Mohamad, 2002: 135). To ensure the vision becomes a reality, four key institutional stakeholders were appointed to oversee Cyberjaya project, namely, Multimedia Development Corporation (MDeC), the custodian for MSC project; Cyberview Sdn. Bhd., the real estate management of the area; Setia Haruman Sdn. Bhd., the master developer of Cyberjaya, and; Majlis Perbandaran Sepang (MPSP), the local government of the city. The ‘mecca for IT companies’ in Cyberjaya would consist not only offices and residential units but also training centers, R&D institutes, incubators, universities, recreational parks and retail areas for lawyers, bankers, accountants and venture capitalists. In short, it is a concentration of infrastructures and creative agents that hope would foster creativity and innovation at an urban scale. To date, Cyberjaya is home to more than 38 multinational corporations (MNCs) including HSBC, DHL, Shell, Motorola, OCBC, IBM, Ericsson, BMW and Fujitsu, as well as 800 both foreign and homegrown technology-oriented companies (see Figure 2). KRU Academy, Animonsta Studios and Giggle Garage are some local multimedia companies based in the city. Cyberjaya is also home to government agencies that play pivotal role in promoting innovation culture like MSC Malaysia Knowledge Workers Development Centre (KDC), Malaysian Foundation for Innovation (YIM), National Innovation Agency of Malaysia (AIM) and Malaysian Global Innovation and Creativity Centre (MaGIC). Several international-standard universities located in Cyberjaya as well such as Multimedia University (MMU), Limkokwing University of Creative Technology (LUCT), University Malaysia of Computer Science and Engineering, Cyberjaya University College of Medical Science, Cyberjaya Putra College and Kirkby International College (Cyberview, 2016).



Figure 2: An example of MNC in Cyberjaya: Wisma Shell which locates the Shell Business Service Centre for global operation. (Source: Author)

The development model of Cyberjaya enriches the examples of innovation districts across Asian countries that are akin to Silicon Valley like Zhong Guan Cun in Beijing, China, Daedeok Innopolis in Daejeon, South Korea, Fusionopolis in Singapore as well as the one in Hyderabad and Bangalore, India. This trend of replicating the economic success of Silicon Valley then becomes a popular discourse among planners and sociologists, in which they term the trend as the “Siliconisation of Asia” (see Indergaard, 2003; Bunnell, 2004; Yusof & van Loon, 2012).

4. TWO DECADES AFTER THE ‘SILICONISATION OF ASIA’ IN MALAYSIA: WHERE ARE WE NOW?

Critics have shared varied perspectives in responding to the development of Cyberjaya. Some are skeptical with its sustainability. The geographer Tim Bunnell, for instance, is pessimistic with Cyberjaya’s capability to reverse brain drain. In some Asian advanced emerging economies like South Korea and Taiwan, the successful innovation districts have managed to attract highly skilled workers that based overseas to come back to their home country. For Bunnell, it seems difficult for Cyberjaya to follow the similar pattern. Providing a city with world-class working environment, Bunnell argues, is insufficient enough to woo overseas Malaysians back unless there is a “fundamental shift” in the whole country for favouring population from ethnicity to skills (2004: 98). Bunnell goes on with acculturation. While Cyberjaya strives to emulate Silicon Valley’s technological lead, authorities in Malaysia nonetheless “seeking not to replicate urban America’s high divorce rates and incidence of family breakdown—what, in the case of Southern California, has been termed the ‘dark side of the chip’” (2004: 100). Bunnell after all calls for the improvement of socio-economic policy in Malaysia in tandem with her vision to become the global technology hub.

In a similar vein, but with a different concern, Norhafezah Yusof and Joost van Loon highlight “a discrepancy” between the government’s idealizations and real social life in Cyberjaya (2012: 298). According to them, the modernist belief of urban design in Cyberjaya with far distance between residential, commercial and recreational facilities, exclusive commercial spaces and fortified communities leads the city to become “a lifeless non-place” (2012: 311). The city loses its *genius loci*; there is almost no social life. While Yusof and Loon focus on the anthropological polemic of the city, Tan Siew Mung (2014) otherwise emphasizes the lack of Cyberjaya in attracting FDI. She refers to the 2012 ICT census survey that revealed only 7 percent of the gross output and 9 percent of value added in national ICT industries are contributed by foreigners. With stiff competition from the neighbouring Singapore, Vietnam, Philippines and Indonesia, Cyberjaya, Tan asserts, needs

to play bigger role for attracting foreign investment and technology transfer. In addition, the Malaysia Productivity Corporation (MPC), a government agency for overseeing national productivity performance, brings to light the challenge of ICT industries due to the country’s weak links to the global R&D and innovation network (MPC, 2014: 54). This resonates with the concern raised by the economist Ali Salman who calls for smart role played by the government to boost demands both locally and internationally using the technical expertise developed in Cyberjaya (Salman, 2018).

Cyberjaya is seen as a state-led model for cultivating innovation culture. As the sociologist Michael Indergaard discusses, unlike Silicon Valley that evolves from strong ‘bottom-up’ R&D activities and tech businesses ecosystem, the Malaysian government has made ample use of its sovereign powers in developing Cyberjaya. In this context, the city, Indergaard suggests, sets a “desirable” reference for other developing nations that look to ICT industries as a national agenda (2003: 381). Apart from that, the assigned government agencies have played an important role in manouvering the development of Cyberjaya. Over the past few years, MDeC has launched several initiatives such as Digital Malaysia and Creative Lifelong Learning Programme (CILL) to stimulate Malaysian SMEs, particularly, in creative content industry. The initiatives bear fruit when numbers of homegrown multimedia companies started to produce world-class products. Some examples include the international distribution of the animation, SeeFood produced by the local MSC status company Silver Ant in 2011 and the participation of the Cyberjaya-based visual effects company Rhythm and Hues (R&H) in producing the Oscar-winning animation, Life of Pi in 2012. Also, the MSC status company Les’ Copaque’s popular animation, Upin & Ipin has been broadcasted overseas, in 17 countries (MATRADE, 2016). Based on these results, it is unsurprising to note that the creative content industry is considered a promising prospect for national economic growth. The Oxford Economics report entitled The Economic Contribution of the Film and Television Industries in Malaysia shows that the industry contributed a total of USD1.7 billion or RM5.6 billion to Malaysia’s GDP in 2013 (Oxford Economics, 2014). The report then emphasizes the vast potential of the creative content industry in Malaysia. The potentiality is supported by the 2014 Annual Report of the Economic Transformation Programme (ETP) produced by the Performance Management and Delivering Unit (PEMANDU), a government think tank under the Prime Minister’s Department. According to PEMANDU, Malaysia’s creative content industry shows a tremendous growth since 2010 with an export amounted to RM 609 million (PEMANDU, 2015: 15).

While MDeC is assigned to oversee the MSC project, MaGIC is set up as a specific government agency to promote the entrepreneurial ecosystem of

startup particularly among Malaysian youth. MaGIC was launched by the United States President Barack Obama and the Malaysian Prime Minister Dato' Sri Mohd Najib Tun Abdul Razak on 27 April 2014. It is based in Cyberjaya (see Figure 3). Since its launch in 2014, MaGIC has been playing aggressive role by providing resources, education and networks for local startups to expand their businesses overseas. MaGIC's achievement is impressive and commendable. Within a year of its establishment, few local startups started to secure luxurious investments and seed funding. Among them is FashionValet, the first Malaysian online fashion store. The startup has secured a multimillion dollar investment led by Elixir Capital, a global private equity firm based in Silicon Valley. The investment allows the startup to scale up its operations to other Asian cities (MaGIC, 2015). Another successful story is MyTeksi (now Grab). This startup started its operation by providing taxi services through smartphone application in Malaysia. Upon securing a multi-million dollar investment, the startup now is the largest ride-hail service in Southeast Asia, covering private car services, motorcycle taxis, social carpooling and last mile delivery. It is dubbed as 'The Uber of Southeast Asia' (ibid; Yap, 2016). From this perspective, it can be argued that Cyberjaya has successfully injected considerable impact to the advancement of K-based economy in Malaysia.



Figure 3: Malaysian Global Innovation and Creativity Centre (MaGIC) in Cyberjaya.
(Source: Author)

The recent improvement in some international rankings may also reflect the advancement of K-based economy in Malaysia. Among upper-middle income economies, Malaysia ranks second after China as a country with effective innovation policies (Cornell University, INSEAD & WIPO, 2014: 23). Malaysia is also considered a leader among middle-income countries in the development of research-oriented graduate education. The 2014 report *Higher Education in Asia: Expanding Out, Expanding Up*, produced by the

UNESCO Institute for Statistics (UIS), describes a “dramatic growth” in the expansion of higher education and research in Malaysia over the last decade (UIS, 2014: 12).

To further accelerate the advancement of the K-based economy, in 2014, Cyberview was tasked to transform Cyberjaya into a ‘Global Technology Hub’. It is an ambitious plan to make Cyberjaya a vibrant, liveable city to “attract talent, businesses and investments to Malaysia” (Cyberview, 2014: 2). Defining the idea of the ‘technology hub’, Cyberview outlines five technology focus areas for Cyberjaya, namely, ICT; green technology; biotechnology; wearable technology, and; smart grid technology. Cyberview is quick to understand the ‘nested’ configurations between Cyberjaya, MSC area and Greater Kuala Lumpur. Instead of concentrating on available talent pools within only Cyberjaya, Cyberview expands collaborative R&D works with GRIs, prominent universities and companies around the neighbouring areas of Klang Valley. These include the GRI Malaysian Institute of Microelectronic Systems (MIMOS), local Research Universities (RUs) such as Universiti Malaya (UM), UKM and UPM, and homegrown technology companies like MyCERT, exabytes, Predictry, Bioalpha, DominoDiversified and Masers Energy. From a physical planning perspective, Cyberview is very careful with future development due to the depletion of land bank in Cyberjaya. The upgrade of both existing ‘soft’ and ‘hard’ infrastructures are taken into account. Soft infrastructures include the enhancement of digital connectivity with fast speed of fixed broadband network and adequate wireless connection. Whereas hard infrastructures involve providing more inclusive spaces such as pedestrian-friendly streets, hospital and affordable housing. Thus, to be a global technology hub, Cyberjaya needs not just ‘bricks and mortar’ but also ‘the memory and the soul’ of the place.

To date, there are eight major developers in Cyberjaya include Emkay Group, SP Setia, United Engineers Malaysia (UEM) Land, OSK Property, MCT, Paramount Properties, Mah Sing and most recently, the Malaysian Resources Corporation Berhad (MRCB). In 2015, MRCB announced a new development called Cyberjaya City Centre (CCC) that will feature assets worth RM11 billion (Kaur, 2015). The 20 years’ development will cover, at this moment, the construction of convention centre, business hotel, office buildings and retail podium. Also, MRCB plans to upgrade the pedestrian walkways and transport connectivity of the city with the metropolitan Greater Kuala Lumpur area. This is in parallel with the rail project Klang Valley Integrated Transit System (KVITS), a massive government project that connects, among other places, Cyberjaya with Kuala Lumpur’s major spots such as the bustling business district of Golden Triangle area, the administrative city of Putrajaya and the world-class tourist attractions such as Kuala Lumpur City Centre

(KLCC) and Bukit Bintang (SPAD, 2011: 12). The project is expected to be completed by the year 2022, and with that, the developers are bullish with the prospect of Cyberjaya. And, early of this year, MDeC announced a significant increase in the FDI of the MSC project. The FDI has increased 11 percent in revenue to RM 38.52 billion in 2015, the highest since Cyberjaya's inception in 1996 (Ibrahim, 2016).

It is still too early to claim that the Global Technology Hub of Cyberjaya is a fruitful programme. But one thing is for sure, the works for the programme have got off the ground. The works have paved the way for more possibilities in exploring the creative cluster issues in Malaysia. In this respect, Cyberjaya becomes an interesting testbed to assess whether or not an "innovation is in itself a geographic process", to reiterate Feldman's proposition (1994: 93).

5. CONCLUDING THOUGHT

This article contextualizes broad issues in the relationships between industrial policies and creative cluster by first highlighting the policy implementation in the United States, the United Kingdom and Singapore; before narrowing down to the context of Malaysia. The review revealed some strategic initiatives among developed countries in marrying together industrial policies and creative cluster that resulted the efficacy of knowledge commercialisation and conducive business environment for highly competitive talents.

In Malaysia, following the K-based economy initiative in the early 2000s, the country is now in the process of harnessing her economic diversification beyond the traditional agricultural and manufacturing-based revenues. While some Asian emerging economies like South Korea and Taiwan have managed to overcome the curse of 'middle-income trap', Malaysia has been struggling to accelerate her progress to become a high-income nation. Creativity and innovation is seen as a key driver, but more studies and reseaches are needed to accommodate an effective policymaking process.

This article thus calls for more specific and contextualized studies for understanding creative cluster issues in Malaysia. With the establishment of industrial estates, FTZs, the special economic zone of MSC and most recently, the Global Technology Hub programme in Cyberjaya, it is more than timely to explore the spatial aspects of creativity and innovation in Malaysia. By 'spatial', I mean the geographic dimension of urban economics. How far can the economy's behavior change with the locational concentration of R&D, business activities and transportation networks in Malaysia? How does urbanisation process may encourage (or discourage) innovative and creative environments in the country? are some questions that need specific spatial

geographical investigations. Similar questions become increasingly relevant at the regional level of Southeast Asia with the current interest among ASEAN leaders to adopt the economic success of Silicon Valley as announced during the US-ASEAN Summit in California (Basu, 2016) as well as the recent launch of the ASEAN-China Year of Innovation (ASEAN, 2018).

As the geographer David Harvey points out, back in the early 2000s, the "distinctive geographical processes of the production and reconfiguration of space have created the specific conditions of contemporary globalization" (2001: 24). Perhaps, in this case, we are now dealing with the 'geographical processes' of creativity and urban space that have created a specific condition for the globalization of ideas and innovation.

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