

ARTÍCULO ESPECIALIZADO

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KNOWLEDGE-BASED ECONOMY – RISING CHALLENGES OF THE GLOBAL SCHOOLHOUSE PROJECT IN SINGAPORE

**Economía basada en el conocimiento-
Desafíos crecientes del Proyecto de Escuelas globales en Singapur**

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Resumen

El presente artículo analiza el desarrollo de los centros educativos en Singapur. La migración de profesionales y estudiantes talentosos alrededor del mundo comenzó hace varios siglos y fue impulsada con la globalización. Singapur busca tener un rol de liderazgo en la creación de una economía basada en el conocimiento. Por consiguiente, el gobierno tiene grandes ambiciones en construir no únicamente centros de investigación sino también un entorno universitario de clase mundial para convertirse en un epicentro de educación. La primera parte del artículo describe los factores que facilitaron el establecimiento de los centros de educación y el proyecto global de escuelas en Singapur. La segunda sección identifica los retos y problemas de dicho proyecto, mientras que la tercera parte propone soluciones a estos problemas. A pesar de que algunas soluciones pueden referirse a las políticas implementadas en otros países el artículo mantiene un enfoque único de los problemas de Singapur.

Palabras clave

Economía basada en el conocimiento, escuelas mundiales, xenofobia, centros de educación, estudiantes internacionales, programa social de integración.

Abstract

This article analyses the development of the education hub in Singapore. The world-wide migration of professionals and talented students had started many centuries ago and was further bolstered by globalization. Singapore intends to take a leading role in creating a knowledge-based economy. Consequently, the government has great ambitions to build not only research centers but also a world-class university environment, an education hub. The first part of the article seeks to describe the factors that facilitated the establishment of the education hub and the Global Schoolhouse project in Singapore. The second part identifies the challenges and problems of this project, while the third part proposes solutions to these problems. Although some of the solutions may refer to policies implemented in other countries, the article maintains a focus on the unique problems of Singapore.

Key Words

Knowledge-based economy, Global Schoolhouse, xenophobia, education hub, international students, social integration program.

Introduction

Singapore was one of the countries whose government has consistently emphasized that the development of the economy requires a sufficient influx of immigrants. Although Singapore's economic growth was extensively based on immigrant labor and the attraction of multinational corporations, it had to review and adjust its strategies for growth several times over the years. It could capitalize on its favorable geographical location, its political stability, and the regular inflow of FDI into the country. Rapid development resulted in full employment, an overheated real estate market, and high immigration rates. In response, the government started to revise its earlier policies that had been

1 Knowledge-based Economy – Rising Challenges of the Global Schoolhouse Project in Singapore and beyond.

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aimed at attracting low-wage manufacturing, and introduced incentives for companies willing to provide higher wages and more skilled jobs. Such modifications of the economic configuration could not have been possible if the government had not planned ahead and had not been able to flexibly change programs for growth (Csizmazia, 2016). The ruling People's Action Party declared education a key to success. The government not only gave systematic support to education but also set goals for education providers. Public education institutions have always been responsible to the government, which provided funding on condition that they followed its instructions concerning training and education.

The government had to realize that Singapore's dependence on the export-oriented manufacturing sector rendered the country highly vulnerable to such external shocks as the successive oil crises, the Asian financial crisis of 1997-1998, and the global economic crisis of 2008. The Singaporean policy-makers took measures to diversify the economy so as to mitigate the effects of the crises. According to MTI (1986), the new directions included a shift toward operational headquarter strategy and the creation of an educational hub as a new service sector. The city-state has been making efforts to attract highly skilled labor in order to establish a knowledge-based economy and to position itself as a global leader in research and development as well as science and technology. These measures could not have been successfully implemented if the country had not undergone several phases of emergence in education. In Asia, both private and public investments in education are on the rise. Singapore's ambition to create a knowledge hub was triggered by the Asian financial crisis of 1997/98, as the Singaporean government sought to rely on this competitive advantage to sustain the nation's wealth and economic growth (Masuyama et al., 2001). The education hub project, dubbed Global Schoolhouse, was formally announced in 2002. This project has three pillars: inviting elite universities to establish their own branches in Singapore; attracting a large number of international students to enroll in Singaporean educational institutes; and encouraging local universities to adopt an entrepreneurial approach (Sidhu, 2006 and Sidhu et al., 2014). Due to the successful implementation of the Global Schoolhouse project, Singapore achieved the second position in the Global Talent Competitiveness Index of 2015.

Literature Overview

Due to the recent rise of publications on education hubs, a complete literature overview is nearly impossible to provide. As Knight (2011; 2013) pointed out, this topic had been covered mainly in grey literature. Analyzing six countries, Knight (2011; 2013; 2014) examined whether the recent emergence of education hubs constituted only a "fad" or rather an important trend, and whether there was a brand equity that could support innovation. He studied the configuration of the hubs from local, regional, and international perspectives through the following three critical aspects: scale, level of engagement and scope of impact. Sidhu et al. (2014) focused on the national context of educational hubs and on the contribution that the various agencies made to the development of such education hubs. The relevant challenges and problems have been extensively analyzed by Montsion (2009), Ng (2013), Collins et al. (2014), Lee (2014), Lo (2014), Waring (2014), Liu (2014), Gomes (2014), Gribble and McBurnie (2015), Savage (2015), and Yeoh and Lam (2016). Some of these challenges are related to the lack of transparency, while other problems are rooted in the questions of biculturalism, cultural integration, and xenophobia. Finally, certain special problems are inherently present in the system of educational hubs.

Global Competition for Talents – The Development of Education Hubs

For centuries, the international mobility of students and scholars was a major characteristic of higher education. In recent times, technological development and the globalization process have further intensified this mobility. Scholars started analyzing the context and causes of the emergence of new educational institutions and the migration of talents. The phenomenon of brain drain – the move of professionals from less developed countries to developed ones – received increasing attention. Jon et al. (2014) and other scholars examined why students decided to study at foreign universities, and described the “pull” factors (from the developed countries) and the “push” factors (from the developing countries) that shaped this process. Altbach’s (1998) push-pull model points out that students might be “pushed” out of their home country by the insufficient or inferior level of the local educational resources, and might be “pulled” by the opportunities to undergo high-quality education abroad. McMahon (1992) refined this push-and-pull model by emphasizing that a regular flow of students from developing countries to developed ones could occur only if the developing countries in question had a solid economic base and a state-level recognition of the general importance of higher education. That is, students must be aware of the benefits of international experience and of graduating from a renowned foreign higher education institution (HEI). In the second phase, focused as it was on the mobility of degree programs, authorities sought to attract foreign public and private universities (and specifically their degree programs) rather than to improve the local educational infrastructure. Regional and global trade agreements also boosted the expansion of higher education and its commercial application by foreign providers. While local students often preferred such programs and qualifications over the option of studying abroad, this practice also caused problems. Under such conditions, students could not acquire cultural capital and creative solution abilities to the same extent as during a long-term stay abroad (Waters and Leung, 2013). Mobility capital is the main difference between immobile students and international students. It was described by Murphy-Lejeune (2003) as a sub-component of human capital that enables mobile individuals to improve their skills through their accumulated international experiences, acquiring advanced linguistic skills, broadened problem-solving abilities, widened intellectual skills, and a more cosmopolitan worldview. Local and immobile students obtain their degrees in situ, and miss all these advantages. The growing number of immobile students may also be attributed to the growing number of students whose parents belong to the working class. In many cases, the undergraduate programs offered by foreign institutions also constitute an option to obtain a degree and thus overcome the deficiencies of the local school systems (Waters and Leung, 2013). Nevertheless, the mobility of students from “middle-class cosmopolitan” families remained high.

Non-local degree programs play an important role in shaping tertiary education, and private institutions have increasingly regarded them as a revenue-generating industry. The rapid growth of immobile students has been noticed by the overseas HEIs from the UK. The British Council observed that the number of enrolled international students in the UK is “unsustainable in the longer term,” and suggested that HEIs should build overseas partnerships and branch universities (Bone, 2009). Unsurprisingly, overseas HEIs established by British HEIs had the second largest number of students in Singapore, outnumbered only by Malaysia. During the academic year of 2012/2013, their number stood at 50,025, having greatly increased from 20,845 in 2007/2008 (HESA, 2014). These programs are defined by the British Council as “transnational education.” Unfortunately, they are usually devoid of a significant aspect of international education, that is, international mobility. Such HEIs also attract students by offering them scholarships, but some of these scholarships are

hardly feasible. For instance, a student who won a scholarship to a certain UK campus had to pay all costs except the accommodation, but still the university used his picture to promote its undergraduate program at its overseas campus in Hong Kong (Waters and Leung, 2013). Such scholarships are offered not only in Hong Kong but also in Singapore. The students receiving a diploma from such institutions may wonder whether the quality of these programs was worth of the tuition fee they paid for them.

The third phase of cross-border education, focused as it is on the mobility of policy, is the establishment of education hubs along with quality assurance, qualification frameworks, and credit systems. Knight (2011; 2013) defines education hubs as follows: "An education hub is a planned effort to build a critical mass of local and international actors strategically engaged in education, training, knowledge production, and innovation initiatives." This definition also suggests that international participants take a role in establishing the hub, while policymakers create the relevant regulations and provide incentives. Singapore was quick to realize the advantages of GATS (General Agreement on Trade in Services) and of the Global Schoolhouse project. Each of the four modes referring to higher education has been implemented in the city-state:

- Mode 1: Cross-border supply (i.e., e-education and virtual universities)
- Mode 2: Consumption abroad (i.e., international students studying abroad)
- Mode 3: Commercial presence (i.e., satellite campuses, franchising and twinning engagements)
- Mode 4: Presence of natural persons (i.e., the migration of teaching personnel to foreign countries in search of employment (WTO, 2002)).

In 2002, the formal recommendation of the Education Workgroup of the Economic Review Committee (ERC) was adopted to commence the Global Schoolhouse project (Waring, 2014). Collins et al. (2014) backdates the origin of the project to the program named Manpower 21 (also known as Industry 21), which was launched in 1998 to stimulate the long-term development of the workforce (Toh, 2012). The chair of the Education Workgroup made suggestions how Singapore could make a better use of its strongly subsidized educational institutions and its emerging pool of private education institutions (PEIs). "Helping private providers to grow, facilitating partnerships between institutions and attracting new players into the market would create a Global Schoolhouse," the report stressed (Ministry of Trade and Industry, 2002). These recommendations led to a detailed action plan, which pointed out that Singapore had a great opportunity to:

- Leverage on the branding potential of the renowned foreign universities.
- Promote the tertiary segment by allowing private universities to set up.
- Develop private commercial and specialty schools.
- Attract and export corporate training and executive education.
- Grow Singapore as a regional destination of choice for high-quality preparatory and boarding school education" (Ministry of Trade and Industry Singapore, 2002) (Waring, 2014).

To ensure the high quality of education in the private sector and facilitate Singapore's participation in Global Schoolhouse, Singapore's parliament issued the Private Education Act (2007) that called for quality improvement and for the reduction of the number of PEIs. The Private Education Act has tightly regulated and monitored PEIs. The parliament also established the Council for Private Education (CPE) to protect students and their tuition fees. The CPE was authorized to take remedial actions, penalize, or even suspend and withdraw registrations in case of non-conformity. Each PEI was required to undergo a registration process in the Enhanced Registration Framework. On the

basis of the registration, PEIs may apply for an award through the EduTrust award scheme. They can receive it only if they raised the quality of their educational and academic processes, ensured the protection of students, and started to monitor their economic viability and administration. Only those private educational institutions that received an EduTrust award gained access to the market of international students. Following the enactment of the Private Education Act, the number of PEIs suddenly dropped, and the remaining ones strove hard to receive an EduTrust award (Waring, 2014).

Similarly, tight control has been maintained over public educational institutions so as to provide education in accordance with the economy's demand for manpower. The accountability framework for Singaporean universities includes the Quality Assurance Framework for Universities as well as the Policy and Performance Agreements between Ministry of Education and each university, ensuring a high quality education. Although local universities enjoy a high degree of autonomy, the system of accountability requires them to serve national needs. Central control over universities implies that funding may be withdrawn at any time from projects and programs that do not serve the goals of policymakers. Accordingly, the University Corporatization Act (2005) entitles the government to maintain its control over the sector through performance frameworks (Lee & Gopinathan, 2007; Gopinathan & Lee, 2011). Ng & Tan (2010) describe the 'autonomous universities' as 'state-funded, privately managed and publicly accountable institutions'.

The government created a curriculum to "broaden students' knowledge and prepare them for local and overseas education," and it also recognized the importance of encouraging students to undergo education in foreign countries (Daquila, 2013). A review of the Ministry of Education stressed that Singaporean students must be prepared "for a more dynamic and interconnected future where they will need to be highly-skilled, versatile and resilient" so as to be able to compete with mobile international students (MOE, 2012). Hence the goal is to provide international experience to students across the entire educational system by means of exchange programs and short- or long-term homestays. It is a determined effort to demonstrate that the ruling elite is ready to act in the interests of the nation and to evaluate itself more critically in the global competition. This was at least partly a response to the outcome of the watershed general election held in 2011. The review committee proposed to introduce a new applied degree pathway that should have "strong theoretical foundations, integration of soft-skills such as communication and cross-cultural skills into the curriculum, innovative applied pedagogy, close collaboration with relevant industries, and excellence in teaching and a high-quality undergraduate research" (MOE, 2012).

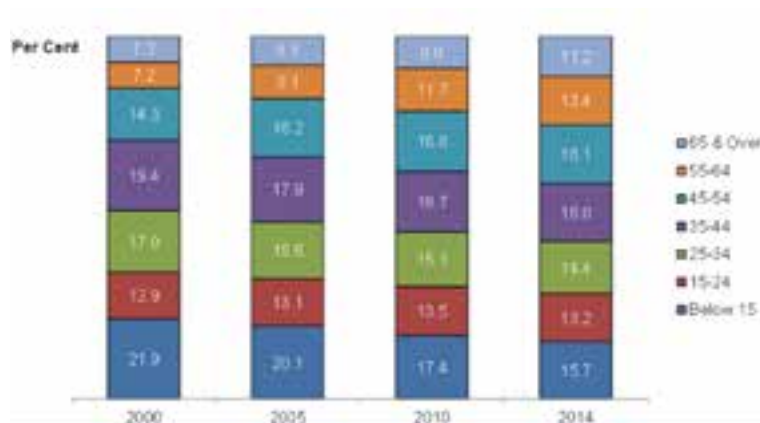
Challenges Influencing the Development of the Education Hub

Dessoiff (2012) stated that the original idea of creating a top-quality educational system with high flexibility and innovation ambitions may be attributed to a Malaysian Ministry of Education policy document. Singapore only borrowed the idea and refined it to establish an education hub in accordance with the Global Schoolhouse initiative. Minister of Education Teo Chee Hean drew attention to the importance of developing the Global Schoolhouse, and named this vision "to become the Boston of the East". He referred not only to the core world-class universities in Boston but also to the entire region around the city, encompassing over 200 universities, colleges, and research institutions. The short-term goal of profiting from the tuition fees paid by foreign students was now only of a secondary importance; instead, the program's long-term economic and social benefits were identified as the primary goal. The leaders of the city-state also wanted to address certain acute challenges.

Ageing Population

One of these challenges is the persistently low fertility rate among Singaporean citizens. Lee Kuan Yew, the “founding father” of modern Singapore, announced that “without immigrants and foreign workers, and at the dismal rate Singaporeans are reproducing themselves, there will be 1.5 working-age people to support two elderly people by 2050” (Han et al 2011: 267). The birth rate stood at 1.15 in 2011, and slightly rose to 1.25 in 2014 (SingStat, 2011 & 2014). Seeking to encourage citizens to marry and have babies, the government introduced a comprehensive set of measures (including a government-sponsored dating agency and a baby bonus package), but these efforts have not yielded yet the desired results. Judging from Figure 1, the ageing trend appears unstoppable (SingStat, 2011 & 2014). While the proportion of persons younger than 15 has been shrinking rapidly, the percentage of the oldest generation has been rising almost at the same pace. For this reason, Singaporean policymakers had to make additional efforts to alleviate the labor shortage.

Figure 1. The ageing trend



Source: Ageing Families Report, p.8 (Ministry of Social and Family Development, 2015)

Immigration Influx: The Rising Challenge

Singapore’s headquarter strategy and its drive for a knowledge-based economy require openness towards the influx of talents from all over the world. The Singaporean education sector has been prepared to gain a large share of the global education market. To achieve this aim, Singapore systematically invited world-class universities to create Centers of Excellence and to foster R&D activities. Local universities were encouraged to adopt an entrepreneurial model (Sidhu, 2006; Sidhu et al., 2014). Consequently, public universities have been increasingly engaged in partnerships with distinguished universities from Germany, Britain, France, the U.S., India, Netherlands, Australia and China, offering joint graduate and post-graduate degrees. To improve the quality of education, esteemed foreign academics were invited to work in Singapore.

FOREIGN PROFESSIONALS

To attract top foreign professors, the government has provided generous research grants and highly competitive salaries. The most serious challenge was how to retain them. The government could demonstrate only a partial success in retaining such illustrious academics (Ng, 2013). A few of the latter were frustrated by the fact that they had to devote more time to red tape than

to research, and by the increasing pressure to focus on economic outcomes to maintain funding (Wong, 2011). Financial pressure became a burden to the majority of foreign academics. In response, Singaporean policymakers started to recruit young and ambitious researchers with higher efficiency. Sidhu (2015) observed that the city-state may have a “democracy deficit” in politics but this problem does not affect the freedom of most academics and researchers associated with the Global Schoolhouse program. A large proportion of immigrant knowledge workers are grateful for the professional freedom they enjoy in Singapore.

INTERNATIONAL STUDENTS

The long-term objective of the Singaporean government is to engineer a highly research-intensive, innovative, and entrepreneurial society that will be capable of competing with the most developed countries of the world. Naturally, this objective requires strong commitment from the government. Policymakers endeavored to create an environment suitable for developing talents for the economy. Three types of talents have been targeted: local citizens, foreigners, and the diaspora. To attract talented international students, the ruling elite liberalized immigration policies in the last 15 years (Daquila, 2013; Gribble & McBurnie, 2015; Knight, 2013; Kumar, 2013; Liu, 2014; Yeoh & Lam, 2016). The easing of immigration rules can be attributed to the following goals: first of all, it was necessary to pursue a strategy of brain drain by offering scholarships. As a government spokesman put it, “We don’t want your money — we want your brains.” (Gribble & McBurnie, 2015). Second, it was vital to implement the neoliberal market model of education, that is, to commercialize education for the sake of capital accumulation (Lo, 2014; Waring 2014). The government introduced bonded scholarships with the condition that the beneficiaries work in Singapore for a period of several years (Lee, 2014; Liu, 2014; Gribble and McBurnie, 2015). International students are also allowed to work in Singapore as long as these activities do not exceed sixteen hours a week (Waring, 2014). For international students, this was an excellent opportunity to combine education with part-time employment in a country where unemployment was low and living standards were high. For policymakers, this practice offered a solution to the country’s growing labor shortage. However, the financial crisis of 2008 and the resulting tensions in the job market generated hostile popular sentiments against foreigners.

CULTURAL (DIS) SIMILARITIES

In recent times, the city-state strengthened its relations with China in a way that seemed disadvantageous to many Singaporean citizens. For instance, mainland Chinese students were granted access to secondary school education too. The government’s growing emphasis on biculturalism (i.e., the promotion of Mandarin alongside the hitherto dominant English) generated discontent among local citizens, many of whom were uncertain about how to define their Chinese identity. By emphasizing biculturalism, the government juxtaposed “Western culture” to “Chinese culture,” and thus effectively excluded the hybridized local language, Singlish, from the definition of ethnic Chinese identity. Many Singaporeans felt that their specific national identity will be downplayed for the sake of upholding standard Chinese traditions. When they were encouraged or prodded to use Mandarin, they felt inferior to Mainlander Chinese who spoke Mandarin as their mother tongue. Since many ethnic Chinese students, accustomed as they were to speak Singlish or various Chinese dialects, lacked a strong connection to Mandarin, they found the government’s Speak Mandarin Campaign not only ineffective but also irritating. They also complained about a regulation that apparently restricted local students’ enrollment in primary and secondary schools in favor of Main-

land Chinese students (Montsion, 2009). A few members of the parliament similarly criticized the strategy of attracting talented international students at the expense of local students (Ministry of Education, 2011).

RISING SENTIMENT AGAINST FOREIGNERS

Similarly to the situation in Hong Kong, Mainland Chinese in Singapore apparently seek not only to undergo education there but also to gain advantages by giving birth to their children in the city-state. This practice also generated resentment among Singaporeans, who felt that too much tax money would be allocated to support foreign residents, even though the latter's presence may not bring long-term benefits to the economy. Local students claimed that the government's system of subsidies is insufficient and inadequate. The incentives provided to international students impeded the local students' access to higher education. Under such conditions, many Singaporean citizens felt abandoned by their government (Ng, 2013). This antagonism toward the growing number of immigrants has intensified in tandem with the widening income gap (Chan, 2014). These sentiments were clearly reflected in the general election held in 2011. A growing number of Singaporean citizens wondered whether the government's generosity toward foreigners would be beneficial for them and for their children's future. There were concerns about rising living costs, competition with immigrants for the best jobs, and the preferential treatment of international students. While there is no firm evidence of xenophobia, the frustration of people indicates that such sentiments do exist to a certain extent. For instance, Gomes (2014) observed xenophobic tendencies by monitoring posts on different forums and blogs. Foreigners were accused of being reluctant to adapt to the local environment and of lacking loyalty to Singapore. These charges were not wholly unjustified. Recent Chinese immigrants are usually different from the old generations. Referring to the former, one blogger stated that "they came as adults"... "they chose to come here to improve themselves and the lives of their children."... "Singapore passport is a stepping stone to better things. They are not going to cut off any emotional ties" to their country of origin if "it is growing bigger and bigger in economic and political stature" (Wong, 2009). Due to the results of the election, a shift to "Singaporeans First" was unavoidable.

LACK OF INTEGRATION ATTEMPTS

Yeoh and Lam (2016) stated that of the integration models developed on the basis of Western immigration experiences, only a few were applicable to Asian countries. They focused on two forms of integration of skilled migrants: integration based on economic functionality and integration based on shared social norms. Concerning the feasibility of integration based on economic functionality, Anonymous (2002) pointed out that according to a survey held in 2001, more than half of Singaporean youth "felt threatened by foreigners." Another survey, conducted by the Institute of Policy Studies in 2010, concluded that over 70% of the 400 respondents feared a decline of employment opportunities if more immigrants were to arrive. The share of those respondents who thought that immigrants contributed to the economic development of the country was decreasing, but it still stood at 61.5% (Leong, 2013). Yeoh & Lam (2016) also criticized Singaporean policymakers for not providing a complete set of statistical data about foreign residents. The government simply stated that foreigners would be given only such jobs for which there were no suitable local candidates, but failed to provide evidence to back up its claims. Due to the lack of a comprehensive and convincing explanation, "citizens' acceptance of the economic argument for welcoming foreign talent has been ambivalent at best" (Yeoh & Lam, 2016). The 2001 survey also provided insight into the prospects of integration based on shared social norms. It revealed that social interactions between Singaporean citizens and

foreign talents were fairly limited, not least because there were few formal or informal institutions that could have facilitated integration. Social media discussions confirmed that social integration has been further weakening in recent years (Yeoh & Lam, 2016).

Much of these discussions were focused on new immigrant Chinese families. For instance, a Facebook campaign named “Cook and Share a Pot of Curry” called upon Singaporean citizens to protest against foreign talent migrants on the grounds that immigrants were unable and unwilling to adapt to Singapore’s multicultural environment. The campaign was triggered by a migrant Mainland Chinese family who complained about the smell of curry cooked by their Singaporean Indian neighbors. As a result of the mediation process, the Singaporean family agreed to cook curry only on those days when the migrant Chinese neighbors were not at home (Gomes, 2014). Many Singaporean citizens were upset by the arbitration result, which thus failed to create an atmosphere conducive to integration.

The intensifying discrimination against foreign talents has also hindered the integration efforts of international students. International students were mostly involved in on-campus activities and in supporting other international students. Their participation in their own national societies reinforced their national identity. Many international students considered Singapore only a stepping stone toward the West, as their final objective was to receive further education in the United States (Montsion, 2009; Collins et al., 2014). A survey conducted by Jon et al. (2014) revealed that students attending graduate programs abroad selected a country mainly on the basis of financial considerations (such as the local cost of living and the local scholarship opportunities), and they were usually less interested in building social networks in the host country.

LACK OF TRANSPARENCY

The attitude of Singaporean policymakers towards transparency has not changed much since the establishment of the city-state. Many scholars (Lo, 2014; Lee, 2015a; Reyes, 2015) argue that the lack of transparency has built a wall between immigrants and local citizens, instead of creating an environment that would have been advantageous for both sides. J. Tan & Gopinathan (2000) are of the opinion that “true innovation, creativity, experimentation and multiple opportunities in education” requires the state to allow “civil society to flourish and avoids politicizing dissent”. In contrast, the Singaporean state publishes only such kind of information that serves the needs of the government. Essential data on the number and origin of highly skilled migrants, the proportional data of sectors they work in, and the financial benefits of Global Schoolhouse (e.g., partnerships between universities) are absent (Sidhu et al., 2014). This attitude generates increasing discontent among citizens. In this milieu of uncertainty, social media occasionally became a politically destabilizing force (Savage, 2015). The instability led to the results of the 2011 election. Prime Minister Lee Hsien Loong invoked socialistic standards when he offered additional subsidies to Singaporean citizens in health care, housing, and education. These promises temporarily alleviated the political debates, but they must be fulfilled within a short time to preserve the political status quo.

Solution Approaches

Singapore has consciously pursued the Global Schoolhouse strategy to cultivate a knowledge-based economy. The policymakers realized that education was affected by quality problems, and introduced quality control measures. They also identified the reasons behind the recent emergence of xenophobic tendencies, and sought to alleviate these problems. Through the

years, many of the problems and challenges have been addressed by the government, usually with successful results. Such problems arose within the Global Schoolhouse, too.

Many world-class universities experienced the phenomenon that students were attracted (or not attracted) to them on the basis of erroneous assumptions. For instance, the Research School of Johns Hopkins University was compelled to close due to the insufficient number of student enrolments. New York University's Tisch School of the Arts also struggled to cope with the problem that the number of enrolments was lower than anticipated, and it was eventually shut down in 2014. In 2015, University of Las Vegas was contemplating to close its Singapore campus. Under such conditions, the Singaporean government felt pressured to meet the target number of minimum enrolments. Instead of maximizing the number of universities with which partnerships may be established, the Global Schoolhouse project needs to set realistic targets so as to avoid over-optimistic estimations. The schools that are willing to open a campus in Singapore must be prepared for the situation that their ability to attract students may be lower abroad than at home (Gribble & McBurnie, 2015).

Partly in response to the results of the 2011 election, the government set up the Committee on University Education Pathways Beyond 2015 (CEUP), entrusting it with the task of finding solutions that could increase the participation rate in publicly funded tertiary education institutions from 26% to at least 30% (Lo 2014). Simultaneously, high standards of university education were to be maintained while ensuring the financial sustainability of the universities. The number of foreign enrolments was capped at 18%, and even reduced to 15% (Ng, 2013; Lee, 2015a). The education of local talents should be a critical priority in Singapore's tertiary education strategy.

Singapore's population is composed of citizens, permanent residents, and non-resident foreigners. The rights and duties of permanent residents (PRs) are largely identical with that of the citizens. For instance, they are eligible



to receive government-sponsored housing benefits but also required to do military service. Due to the tightening of immigration policies, the number of PRs has remained largely static (about 0.53 million) during the last five years (NPTD, 2016). The government capped the number of PRs by various means. For instance, PRs are deprived of their privileged status if they are absent from Singapore for a period of twelve months. Nevertheless, they have the option to obtain citizenship after two years of permanent residency. The net effect of these regulations is that foreign residents are encouraged to stay in Singapore on a long-term basis. These circumstances largely invalidate the charge that the growing number of PRs may lead to the misuse of the system. The number of non-residents has been steadily rising but it remained almost constant in relative terms. Although they do not receive any housing benefits, their growing presence may generate xenophobic sentiments against foreigners, because it aggravates the competition for jobs and the congestion in public transportation.

The Singaporean government also urges immigrants to integrate into the community of Singaporean citizens (Liu, 2014). However, the means selected to achieve this aim – such as learning English, interacting with locals, and joining local community activities – seem not to have been very effective in the case of international students. Instead of participating in associations based on their countries of origin, international students should join subsidized international associations. The earlier the international students become assimilated, the more likely it is that they will stay in Singapore for work and make a long-term contribution to the emerging knowledge-based economy. They need to understand and embrace the values of Singaporean citizens, accept the principles of multiculturalism and meritocracy, adhere to the local laws, and show their loyalty by participating in military service (Liu, 2014).

Compared to many other Asian countries, foreign talents who opt for permanent residency status in Singapore can achieve this aim relatively easily. The sole essential requirement is financial stability, that is, one's ability to earn a sufficient amount of money as defined and reviewed by the policymakers. Accordingly, all employment pass holders (foreign professionals, managers, and executives) who currently earn over SGD\$3,300 (US\$2325 approximately) per month, as well as those S pass holders (mid-level skilled persons) who have a fixed monthly income of SGD\$2,500 (US\$1761 approximately), are eligible for permanent residency. It is worth comparing Singaporean immigration regulations with the analogous South Korean regulations. Although South Korea is technically still in war with North Korea, permanent residency does not require participation in military service. Instead, the Korean authorities have made great efforts to facilitate integration through the Korean Immigration and Integration Program (KIIP). This program was designed by analyzing the integration experiences of other countries, with particular respect to Germany, the Netherlands, and Denmark. KIIP focuses on encouraging immigrants to learn Korean language and become familiar with Korean society and culture (Korea, 2010). The program helps to create a home-like environment and encourage the integration of foreign talents and the foreign spouses of Korean citizens. It provides an opportunity to acquire permanent residency or even Korean citizenship. Due to its length, the program requires a genuine commitment from the participants.

The creation of bonded scholarships for international students might be short-sighted in the competition for talents. To retain talents, Singapore should facilitate the integration of immigrants. A remarkable initiative was to publish *Singapore Shiok!*, a guidebook for international students (the Singlish word "shiok" means "feel good"). "Prime Minister Lee placed localism as a pivotal tool for integration as the campaign strongly encourages new migrants in Singapore to embrace Singlish and the multi-tiered and complex local discourse



that accompanies it" (Gomes, 2014). It looks advisable to use different approaches toward the various groups of international students, distinguishing between those students who are likely to opt for permanent residency and those persons who merely want to benefit from the world-class education provided in Singapore. The latter students do not need a lengthy process of integration. Instead, they should be motivated to boost relations between Singapore and their home countries (Lee, 2015a).

Many of the international students come from China, recruited by the Singaporean government. The examinations and interviews are very challenging, but the students who pass them are automatically eligible for generous scholarships. On the basis of an agreement signed by the Chinese and Singaporean governments, each year approximately 7,000 Chinese government officials go to the city-state for training in such fields as vocational and technical education management as well as leadership and soft skills management. The goal is to train as many as 10 million Chinese government officials and 4.5 million technicians between 2011 and 2021 (IE Singapore, 2013). To achieve this aim, a joint project named the Sino-Singapore Guangzhou Knowledge City has been launched. The two governments are planning to draw ten world-class universities into this knowledge city hub (Lee, 2015b).

Singapore started to export its education hub model by establishing similar institutions abroad. Singaporean investments in industry parks in Indonesia, Malaysia, Vietnam, India, and China created new opportunities for the city-state. This way the Singaporean government could establish partnerships with high-ranked universities without increasing the population's exposure to immigration. Those international students who receive bonded scholarships may work for companies in such industrial parks abroad before moving to Singapore. By establishing branch universities in Southeast Asia, Singaporean universities can enhance their reputation and reinforce their ties with the region where Singapore occupies a leading economic role.

The educational objective of Global Schoolhouse is to cultivate local talents, attract international students, and repatriate diasporic talents. In 2015, the number of overseas Singaporean citizens stood at 212,500, approximately 6% of the citizens of the island (NPTD, 2016). The government seeks to bring home overseas Singaporeans, and involve them in building the country. It launched the Young Change Makers Program to inspire loyalty to Singapore among the youngest overseas citizens, aged between 13 and 25 (Gomes, 2014). Policymakers also promote the recruitment of Malaysian-Chinese and Indonesian-Chinese persons on the grounds that their unique regional identity has much in common with the identity of Singaporean citizens of ethnic Chinese origin (Collins et al., 2014; Lee, 2015a). Similarly, Singapore tries to capitalize on its shared colonial heritage with Hong Kong and Macau. Never-

theless, it is questionable if these efforts to recruit immigrants mainly from the region can yield the desired results.

The city-state's headquarters strategy also included measures to squeeze out low-wage jobs from Singapore and to establish industrial parks in the neighboring countries (Csizmazia, 2016). Singapore realized the importance of intellectual property (IP), and implemented a robust regulatory framework to promote development in IP. Singapore seeks to become a 'Global IP Hub in Asia', relying on the multinational companies. A policymaker stated that the Singaporean legal system was neutral, and the city-state should benefit from both Western and Asian businesses. It could position itself to become an "indispensable broker" between governments and multinationals (Lee, 2015b). One of the greatest challenges is the lack of transparency. If the statistical data related to the education hub program were accessible to the public, there would be less concerns about the adverse social effects of immigration, Singaporean citizens would not feel being discriminated against, social cohesion would become stronger, and citizens would be more extensively involved in the decision-making processes. Although the government claims that international students pay considerably more than local students, these statements may not convince the public without sufficient statistical evidence. The government should publish information about the scholarships and tuition fees of international students, and take measures to internationalize local students so as to keep pace with the competing international students. It would be also important to publish the results of government policies and the concrete achievements of the education hub strategy.

The Future of the Education Hub

Knight (2011) notes that the global number of international students soared from 238,000 in the 1960s to 3.3 million in 2008, and to 4.5 million in 2015 (OECD, 2015). By 2025, their number will probably increase to 7.8 million. In the global competition for talents, not only education hubs compete with each other but governments also recognize the importance of regional approaches for partnerships, and megacities seek to take advantage of their modernized education infrastructure. Many of them try to attract esteemed foreign universities by offering tax rebates and the inexpensive or free use of land. For Asia, the European Erasmus Program may serve as a model. This program not only fosters the accumulation of cultural capital but also strengthens the sense of community among students. A wholly new initiative, the Campus Asia Program, seeks to apply the principles of the Erasmus Program to China, South Korea, and Japan. Due to the development gaps between South Korea and Japan (the innovation provider countries) and China (the largest manufacturer of the world), the program faces many challenges. Regional cooperation in education can also be observed between Malaysia and Singapore in the form of the industry and technology parks created in Iskandar. By taking advantage of the cooperation between world-class universities and the high-ranking universities of the region, Singapore could initiate the establishment of a regional education hub with international exchange partnership programs.

Conclusion

The article attempted to analyze how the concept of the education hub has been developing in recent times, and which factors have influenced its development. Singapore quickly recognized the potential advantages of GATS and the free trade agreements. Policymakers created policies and introduced incentives to attract not only renowned universities but also talented professionals and international students from all over the world. Due to the high quality

of both private and public education, Singaporean universities achieved high ranks in global university rankings. Singapore could extend its brand equity not only within the economy but also in education, by encouraging collaboration between research institutions, creating partnerships, and hosting the branch universities established by world-class universities.

Facing an ageing society, the Singaporean government invited foreign talents. Its initial attempts to attract professionals with a high international reputation yielded ambiguous results, for many of these scholars decided to leave after a relatively short time. The government changed tack, and started to engage young and ambitious researchers. International students were also provided with generous bonded scholarships. Among students and skilled employees, the share of local citizens has been constantly shrinking. Certain phenomena, such as intensifying competition between local and international students for university places, a rising number of foreign residents who feel little loyalty to Singapore, rising living costs, and a rapidly increasing unemployment rate, generated hostile sentiments against immigrants. The 2011 election brought about some changes in politics, and the principle of "Singaporeans First" was announced to alleviate tension. Many of the challenges within the framework of the education hub have been successfully addressed, but many others have still remained. Singapore's focus has to be redirected to recruit local talents and overseas citizens. Simultaneously, the government has to find measures to diversify integration approaches, and to build educational institutions outside the city-state that will generate income and earn fame. Policymakers must be creative and flexible to build a knowledge-based economy and to serve the interests of citizens.

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