



JICA Ogata Sadako Research Institute for Peace and Development
Empirical Research Project on Impacts of Study Abroad in Developing Countries - based on Study
Abroad Experiences of Academic Professionals of Major Universities in ASEAN

Higher Education in Malaysia: Impacts of Study Abroad Programs on Academic Institutions

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Empirical Research Project on Impacts of Study Abroad in Developing Countries - based on Study Abroad Experiences of Academic Professionals of Major Universities in ASEAN:

The JICA Ogata Sadako Research Institute for Peace and Development is currently (2018-2023) conducting research on the impact of study abroad on societal and institutional development in ASEAN. The research employs a large-scale survey and interviews with academic professionals at ten top universities in four ASEAN countries (Cambodia, Indonesia, Malaysia and Viet Nam) to examine the impacts of study abroad on university development and their current activities at the university. Further, shifts in study abroad trends over time are identified in the data. For more details about the project, please refer to the site below.

https://www.jica.go.jp/jica-ri/research/human/strategies_20180401-20210331.html

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Note:

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Abbreviations

ACU	Association of Commonwealth Universities
APEX	Accelerated Programme for Excellence
ASEAN	Association of Southeast Asian Nations
ASEM	Asia-Europe Meeting of Ministers for Education
AUN	ASEAN University Network
EEAS	European External Action Service
GSIAC	Malaysia's Global Science and Innovation Advisory Council
HEIs	Higher Education Institutions
HELP	Higher Education Loan Fund Program
HRD	Human resources development
JICA	Japan International Cooperation Agency
JLPMT	Japanese Language Program for Malaysian Teachers
JPT	Higher Education Department
MJIIT	Malaysia-Japan International Institute of Technology
MARA	Trustees for the Indigenous People
MEB	Malaysian Education Blueprint
MEBHE	Malaysian Education Blueprint (Higher Education)
MJHEP	Malaysia Japan Higher Education Project
MOE	Ministry of Education Malaysia
MOHE	Ministry of Higher Education Malaysia
MQA	Malaysian Qualifications Agency
NABA	National Accreditation Board Act
NEP	New Economic Policy
NHECA	National Council on Higher Education Act
NHEFCA	National Higher Education Fund Corporation Act
NHRD	National Human Resources Development
NHESP	National Higher Education Strategic Plan 2020
NKEA	National Key Economic Area
PHEIA	Private Higher Education Institutions Act
PSD	Public Service Department
SEAMEO-RIHED	Southeast Asian Ministers of Education Organization – Regional Centre for Higher Education and Development
SLAB	Bumiputera Academic Training Scheme
SLAI	Higher Education Institutions Academic Training Scheme
STEM	Science, Technology, Engineering and Mathematics
TVET	Technical, Vocational Education and Training
USM	Universiti Sains Malaysia
UTM	Universiti Teknologi Malaysia
UM	University of Malaya
UPM	Universiti Putra Malaysia
UiTM	Universiti Teknologi MARA
UUCA	Universities and University Colleges Act

Executive summary

There are distinct eras in the development of Malaysia's higher education system. Each of these eras are marked by legislation and strategic policy intent which have enabled strong state intervention in the development of the system. Additionally, such strategic intent requires resources, talent and a conducive governance system. As a result of exposure to globalization and the internationalization of higher education, a marked shift from an elitist form of higher education to one which is typically described as a mass system are evident. More importantly, the primary task of the Malaysian higher education system and institutions has shifted from simply planning for the development of human resources to planning and producing human capital. Until the late 1990s, the plans for human resource and talent development were achieved through various study abroad programs particularly for pre- and in-service university academics, including sub-specialty trainings and post-doctoral programs. Such programs grew in both size and scope with funding from the Malaysian central government, the institutions themselves and bilateral collaborative academic and exchange agreements with foreign governments, institutions or international organizations. Since the mid 2010's, however, government funding for study abroad has declined and funding stipulations have been put in place in an attempt to ensure better returns on government money.

At the institutional level, three universities have been at the forefront of internationalization and study abroad efforts in Malaysia: Universiti Sains Malaysia (USM), Universiti Teknologi Malaysia (UTM) and Universiti Malaya (UM). While each university has its own unique history and mission, all have put a great deal of funding and effort toward the development of study abroad programs for their academic staff and students. Such efforts were initially driven by the need to nurture academic staff with advanced degrees and training as well as the lack of adequate resources and programmatic infrastructure to do so at the home institutions. However, with the rapid improvement in the quality of graduate education in Malaysia, training and development for faculty at the home institution has become an increasingly attractive and cost-effective option. This, coupled with decreased government funding, has led to a decline in the number of faculty studying abroad at all three institutions. Instead, the focus of study abroad for academic staff has shifted to providing opportunities for a select few to attend highly reputable overseas institutions and/or gain specialized training in fields that are not available or well-developed locally.

Malaysia's increasing entanglement with global university rankings as well as shifting domestic circumstances and global geopolitics has necessitated that study abroad programs for faculty, like higher education institutions in general, show positive returns in terms of human capital and institutional development. Time spent abroad is believed to benefit Malaysian faculty when they are back in Malaysia serving universities, however such benefits have yet to be shown empirically. With decreasing government funding and more stringent limitations on the destination countries and institutions permissible for study abroad, a trend toward quality over quantity in faculty study abroad is evident. Further, difficult economic circumstances may require some rethinking of ways to achieve international exposure for academic staff in particular.

Part I: Malaysia – Higher Education Development and Policies on Internationalization and Study Abroad

1.1 Overview of Higher Education Development History

While the initial development of higher education in Malaysia was very much a post-independence Malaya effort, it was the colonial administration that first proposed the need to establish a rudimentary system of postsecondary education. Following the withdrawal of the colonial rule in the late 1950s, the initiative to promote higher education by the government of the newly independent Malaya was arguably guided by the need for a pool of qualified civil servants and professionals to administer the machinery of the nascent government. In this regard, an offshoot of the University of Malaya in Singapore was subsequently established as the University of Malaya (UM) in Kuala Lumpur in 1959. The UM in Kuala Lumpur, as the sole university in post-independent Malaya, began to play a prominent role in creating the pool of qualified human resources needed to advance the development agenda of the emerging country.

The first formal state intervention into higher education began with the establishment of the Higher Education Planning Committee in 1967, which was tasked “to review the arrangements [in Malaysia’s higher education] and to make recommendations for the development and improvement of such education in the light of the foreseeable needs and financial resources of the country” (Malaysia 1967, 163). The Committee made five critical recommendations:

- (a) an existing technical college should be converted into a College of Technology (with a status comparable to a university) and offer courses leading to professional qualifications in architecture, surveying, town and country planning, and engineering;
- (b) the Faculty of Agriculture should be expanded (as agriculture was the major sector in the Malaysian economy at that period);
- (c) a university college should be established in Penang, to begin admitting students in 1970;
- (d) more Arts, Science, and Technology courses should be offered using Malay as the medium of instruction, in addition to courses in English; and
- (e) facilities should be expanded to provide training of high-level manpower in accountancy, library and archival science, veterinary science, forestry, fisheries, and journalism (Malaysia 1967, 208).

These five recommendations set the direction for the next phase of the development of Malaysia’s higher education—the most obvious examples being the establishment of Universiti Sains Malaysia (USM, briefly known as University of Penang) in 1969, the upgrading of the Faculty of Agriculture in UM to become the full-fledged Universiti Pertanian Malaysia (UPM) in 1971 [the Agricultural University of Malaysia] (now known as Universiti Putra Malaysia), and the upgrading of a technical college to become Universiti Teknologi Malaysia (UTM) in 1975.

The UM and other public universities established between 1970 and 1980 played a pivotal role in capacity building and human resource development following the formation of the Federation of Malaysia in 1963. After the First Malaysia Plan (1970–1975)—and with the establishment of USM and other public higher education institutions (HEIs)—a Malaysian higher education system began to take shape.

In a systematic analysis of the Malaysian higher education system, Morshidi and Chang Da (2016) characterized the evolution of Malaysian higher education into five distinct eras: Era 1: 1959–1969, Era

2: 1969–1996, Era 3: 1996–2004, Era 4: 2004–2013, and Era 5: 2013 and beyond. Each era is characterized and marked by a watershed event. For instance, the watershed event that defined the shift from Era 1 to Era 2 was the May 13 racial riots, which led to the introduction of the New Economic Policy (NEP) as well as the Universities and University Colleges Act (UUCA) 1971. Likewise, the watershed event between Era 2 and Era 3 was the legislative reforms in the higher education system that, in turn, led to the introduction and revision of a number of legislative acts concerning higher education. The establishment of the Ministry of Higher Education (MOHE) in 2004 and the merger of the MOHE with the Ministry of Education (MOE) in 2013, the separation in 2015, and then the merger in 2018 following the change of government in Putrajaya were other important watershed events that defined the transitions across the third, fourth, and fifth eras. However, based on this analytical framework, it is still possible to identify the event in 1980, within Era 2, as being crucial in terms of human capital development in Malaysia. In fact, 1980 represented the halfway mark of the New Economic Policy, launched in 1970, with the goal of restructuring Malaysian society in terms of economic and social positioning.

By design, the higher education system in Malaysia began to emerge in 1970 and was subsequently guided by several five-year national development plans. These national development plans never failed to underscore the need for public universities to produce graduates and professionals to drive Malaysia's socioeconomic development.

Notably, before many of the recommendations of the Higher Education Planning Committee could be carried out, a racial riot broke out on May 13, 1969, which changed the course of history in Malaysia and played an essential role in the development of the country's higher education system. The government attributed the underlying causes of the unrest to ethnic socioeconomic disparities. Consequently, the NEP was introduced to eradicate poverty and restructure society by redressing the economic imbalances between ethnic groups (Milne and Mauzy 1978). Under the NEP, higher education was identified as the main vehicle to redress these divisive ethnic disparities. This had direct implications for human resource development in subsequent years. Affirmative action implemented since 1970 has been crucial for the development of higher education in Malaysia, as it marked the explicit intervention by the state that resulted in the public universities losing control over the selection and admission of students into their institutions.

Apart from the strong state intervention through legislation, the Malaysian higher education sector in this second era was also characterized by the changing nature of public universities. Arguably, this era was the beginning of the shift from an elitist form of higher education to one which is typically described as a mass system. Previously, the primary role of public universities was to prepare a small group of civil servants and administrators to govern and manage the newly independent country. But since then, universities have broadened their roles to supply skilled human resources for the rapidly expanding economy. They have also worked to remove ethnic disparities in employment and economic opportunities. Effectively, while higher education plays an economic role in the development of Malaysia, it has an even more essential role in nation-building and addressing socioeconomic inequalities.

As 1980 was the halfway mark for the NEP, it provided an opportune time to reflect on its performance and assess its impacts and outcomes in achieving human resource developments that cut across ethnic divisions. Arguably, to sustain or even hasten the restructuring of society and the professions, the period after 1980 saw the beginning of a period or phase where the government established several public universities. By 1995, another four public universities had been established, reaching a total of nine. Student enrollments in public universities have also increased significantly, such that by the end of the second era, there were 190,000 students in public universities compared with a mere 2,000 at the beginning of that period. Lee (2004a) also noted that there were 130,000 students studying in "private" higher education institutions (HEIs) in Malaysia and another 50,000 Malaysian students studying abroad. Numbers have continued to grow since then.

Arguably, after 1980, the first objective that had to be achieved was the need to promote human resource development for a newly industrializing country, followed by the goal of implementing a human capital

agenda for a country aspiring to be a developed nation. The gross enrollment ratio (GER) for higher education also increased significantly—from 4% in 1980, 7% in 1990, 25% in 2000, and further to 37% in 2010 (UNESCO Institute for Statistics 2014). In terms of student numbers, only 323 students were enrolled in 1959 at the inception of the UM campus in Kuala Lumpur (Selvaratnam 1985). Since then, student enrollment in public universities has increased dramatically, rising to 86,330 students in 1985, then 189,020 students in 1995, and 213,599 in 2002, with 71,278 students also studying in private HEIs (Lee 2004a). As of 2013, there were more than 500,000 students in public universities, close to 50,000 in public polytechnics and community colleges, and more than 480,000 in private HEIs (Ministry of Higher Education 2014).

Underlying this significant numerical growth, the expansion of higher education—typifying the trend toward the massification of higher education—has been supported financially by the state. This can be seen in the percentage of expenditure on higher education, which has remained consistent at more than 30% of the total expenditure on education in recent decades. Besides financial support, it is interesting to note that, while there was no legislation to govern the higher education system six decades ago, there are currently nine separate pieces of legislation that directly influence the development of higher education in Malaysia (Zainal et al. 2013).

From 1996 onwards, a series of legislative reforms were introduced into the higher education sector. Prior to 1996, the private higher education sector was minimally regulated. The Malaysian economy was relatively weak following the major economic crisis of the late 1980s in Asia, and with this crisis, the increased demand for higher education had to be met locally. The weak economy and unfavorable exchange rate of the Malaysian currency hindered many students from furthering their studies abroad. The cumulative effect of these economic problems and the opportunity to develop the Malaysian higher education system and institutions in terms of quality and affordability were influencing factors that prompted the legislative reforms beginning in 1996. In addition, the early 1990s was also a period during which globalization and the internationalization of higher education across the South-East Asian region began to have an impact on the Malaysian higher education and institutional systems, with significant potential for attracting international students to the private sector. With the surge in demand for places in the system from local and international students, the private sector—which had benefited tremendously from this trend—needed to be regulated properly. With “privatization” and the private sector as major drivers for the economy, the higher education sector was not exempted from these reforms as they swept across the Malaysian economic sectors.

In 1996, the Malaysian Parliament amended and introduced six legislative acts relating to higher education. The newly enacted legislation included the Private Higher Education Institutions Act (PHEIA), the National Council on Higher Education Act (NHECA), the National Accreditation Board Act (NABA), the Education Act, and the National Higher Education Fund Corporation Act (NHEFCA). In addition to this new legislation, the Universities and University Colleges Act (UUCA) was amended to lay the framework for the corporatization exercise of public universities. Following the introduction of PHEIA (Act 555), private HEIs were officially recognized as contributing to national development, a watershed that marked the beginning of the fastest-growing subsector in the Malaysian higher education system. While 130,000 students were registered in private institutions in 1995, comprising about 35% of total tertiary student enrollment, the number had increased to 203,000 five years later in 2000. This accounted for 53% of the total higher education student population (Tan 2002). The number of private HEIs also increased from 156 in 1992 to 707 in 2002 (Lee 2004a).

The late 1990s signaled the beginning of a highly regulated dual system in the higher education sector—the public and the private (including public-private partnership). The impressive growth of the private higher education sector has led to a system where public and private HEIs can co-exist, with elements of competition and complementarity in terms of students, academics, and programs offered (Wan 2007). For some time, competition took place mostly between private HEIs rather than between the public and private HEIs. This was because private HEIs were intended to complement the public higher education sector rather than compete with it.

The Ministry of Higher Education was established in 2004. Between 2004 and 2013, important developments were observed in the higher education system. With the establishment of several international branch campuses, the private higher education sector could be further subdivided into the international branch campuses sub-sector and the Malaysian private higher education institutions sub-sector. While all private higher education institutions in Malaysia were established under Act 555, in terms of quality assurance, the international branch campuses were also quality assured by their home country system. The establishment of MOHE underlined the importance of higher education in propelling Malaysia into the knowledge-based economy and for Malaysia to achieve its vision of becoming a developed nation. Driven by the need for national strategic direction for higher education, the first initiative of the MOHE, following its establishment, was to develop a blueprint for making Malaysia into a regional hub for higher education. In 2007, MOHE launched the National Higher Education Strategic Plan (NHESP), which formulated the vision of transforming Malaysian higher education into an international hub of higher education excellence with the goal of producing first-class human capital (Ministry of Higher Education 2007).

With the education hub ambition comes image and reputation in the exceedingly competitive higher education market. Policies were designed to push Malaysian universities to become “world-class” institutions in terms of rankings. Universities, in turn, developed institutional strategies to compete nationally and internationally in the ranking exercises. Along with these strategies, universities began to adopt performance management systems in the name of effectiveness and efficiency, thereby creating a culture of academic scholarship that is assessed by quantitative measures. These steps have two implications. On the one hand, they have altered the local academic culture by placing greater emphasis on research activities (Azman et al. 2012; Azman et al. 2014); on the other hand, they have created unrealistic expectations across a variety of fronts that have become a major source of frustration among academics (Wan et al. 2014).

The importance of research and publications in the ranking exercises has motivated the MOHE to recognize five public universities as research universities, with the aim that they would “be at par with world renowned universities” (Malaysia 2006, 258). The importance of research and the active involvement of higher education institutions in this endeavor have prompted the MOHE to devote greater attention to strengthening research, development, and innovation activities in the universities, which—as shall be discussed later—had an impact on human resource policies at the government and institutional levels.

After the General Election of 2013, the MOE and the MOHE were merged to establish the Ministry of Education. The purported rationale was to ensure that the entire spectrum of education could be put under the purview of a single ministry so as to ensure continuity in planning and to provide proper coordination throughout the whole education system from primary to secondary to tertiary and higher education. This arrangement, therefore, marks the beginning of another era and was the precursor to the idea of a Higher Education Blueprint to realign higher education with primary and secondary education. In July 2015, however, a renewed MOHE was established, separate from the MOE. However, even following this separation, the idea of a new Higher Education Blueprint aligned with the Malaysian Education Blueprint (MEB) was pursued with greater focus and drive. Under the Malaysian Education Blueprint (Higher Education) (MEBHE) 2015–2025, universities and other HEIs have become important and complex institutions that not only educate and train future human resources for the economy but are also mandated to produce holistic and balanced citizens. The role of universities in creating and disseminating knowledge in a knowledge-based economy will be extremely important for Malaysia to transform itself from a middle- to high-income nation.

In May 2018, the 14th General Election (GE14) saw the formation of a new government in Putrajaya, and yet again, the MOHE was merged with the MOE, and the Higher Education Sector was established within the MOE. As of the time of writing, little has been laid out in terms of the higher education strategic intent of the new government. Publicly, it is said that all the policies indicated in the Higher Education Blueprint are to be pursued. However, the COVID-19 pandemic, which started in early 2020, has resulted in disruptions and upheavals across the higher education system. This has affected

internationalization activities, with Malaysians preferring to study locally until travel abroad is less bothersome (Study International 2021). Arguably, during the immediate post-pandemic era, the MEBHE will need some reconsidering and resetting in order to follow the new higher education scenario until 2030 (Morshidi and Abdul Razak 2021).

In summary, since 1990, the primary task of Malaysian higher education institutions has shifted from simply planning for the development of human resources to planning and producing human capital. This goal was deemed important for a nation aspiring to be a developed nation by 2020. Table 1.1 summarizes the content of Human Resources Development (HRD) policies in Malaysia in the various national development plans, providing the context of HRD policies and strategies at the ministry and universities. The shift toward a human capital focus from human resources was spelled out in the first comprehensive plan for higher education—the National Higher Education Strategic Plan 2020 (NHESP), which was launched in 2007. A follow-up plan, the Malaysian Education Blueprint 2015 (Higher Education) (MEBHE), re-emphasized the role of universities and other higher education institutions in producing graduates for industry. In the context of a push for the production of industry-ready graduates, the government insisted that public universities, in particular, have to take the views of university-industry panels into consideration when reviewing university curriculums. Recently, in the context of the need to align itself with the Fourth Industrial Revolution (4IR) and the emphasis on advances in technology—while not pushing humans to the sideline—there has been a shift in government policy intent toward the development of humans (or human development) as opposed to merely human capital.

The Malaysian higher education system is currently made up of 20 public universities, 53 private universities (including 6 branch campuses of local universities, 10 branch campuses of foreign universities), 38 private university colleges (including 4 branch campuses), 30 public polytechnics, 80 public community colleges, and more than 366 private colleges (Jabatan Pendidikan Tinggi, Kementerian Pendidikan Malaysia 2018). The system is highly diverse and, more importantly, quality-assured to produce graduates for industry and society without needing to send students overseas for many academic and professional qualifications.

Table 1.1: Contents of Malaysia’s national human resource development (NHRD)

	Malaysia Plans, 1981-2020							
	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th
	1981 – 1985	1986 – 1990	1991 – 1995	1996 – 2000	2001 – 2005	2006 – 2010	2011 – 2015	2016 - 2020
Elements of NHRD	Managing population, labor force and manpower development	Managing population, labor force and manpower development	Managing labor force, restructuring labor market and manpower development	Managing labor force, restructuring labor market and developing skilled and knowledge manpower	Managing labor force, restructuring labor market and developing skilled and knowledge manpower	Human capital development; education and skills training	Managing talent base and workforce; human capital development (education and skills training) and labor market reforms	Improving the efficiency of the labor market, transforming TVET, strengthening lifelong learning and improving the quality of the education system

Source: Adapted from Devadas (2016, 124) and Malaysia (2016)

1.2 Higher Education Policies and Strategies (University Development Policies and Strategies)

1.2.1 General Overview

The development of universities in Malaysia was previously guided primarily by the National Education Philosophy. This philosophy has underpinned progress toward the development of the individual and the

nation-state. Since 2011, however, universities have become increasingly preoccupied with the internationalization of higher education for reputation and the achievement of monetary objectives through the inflow of international students (Ministry of Higher Education 2011). Since 2013, the objective has increasingly focused on developing Malaysia as an education hub. This aligns with the government's strategic policy intent that the Malaysian higher education system and institutions should be listed in world league tables, such as the *Universitas 21 Ranking of Higher Education Systems*, the QS University Ranking, and the Times Higher Education (THE) World University Ranking. This has increased pressure on the system and higher education institutions.

Such strategic intent requires resources and talent in addition to a conducive governance system (see Salmi 2009). In order to realize this, relevant programs have been designed and strategies have been implemented at the ministry and higher education institutions. Success by design, not by accident, was the approach adopted by many Malaysian research universities. Based on Salmi's recipe for global excellence, research universities have begun implementing strategies that would equip and provide university academic staff and personnel with the necessary competencies and exposure at globally ranked universities. In this context, a policy for internationalization involving mobility of scholars and researchers between Malaysia and the UK, USA, and Japan was deemed highly relevant and a program of study abroad in highly ranked universities and research institutions has been instituted following a top-down policy directive from the Ministry of Higher Education. This directive was based on the National Higher Strategic Planning Plan 2020 and the Malaysia Education Blueprint (Higher Education) 2015–2025.

1.2.2 Policies for the Internationalization of Higher Education

As it is conceptualized in the current context, and following Knight (2015), internationalization at the national, sector, and institutional levels is defined as the process of integrating international, intercultural, or global dimensions into the purpose, functions or delivery of postsecondary education. Internationalization is not just about numbers, such as the observed mobility programs of staff and student study-abroad programs but needs to include collaborative academic and research arrangements between countries and higher education institutions. More important is the impact on the participants in terms of global and regional understanding, leading to a higher level of intercultural and inter-regional competencies compared with the situation prior to the internationalization of higher education.

Viewed in the abovementioned terms, Malaysia's Internationalization Policy of Higher Education 2011 was rather limited in terms of its aspirations and objectives. The policy was primarily aimed at catering to the inward mobility of students to Malaysia in line with the Malaysian education hub objective. "The Internationalization Policy for Higher Education in Malaysia is an operational policy, which aims to accelerate the inflow of international students to 150,000 by 2015 and 200,000 by 2020" (Ministry of Higher Education 2011).

Outward mobility of Malaysians—either for short or longer-term study abroad—is not covered in the above policy. However, individual universities have stretched this internationalization policy through their internationalization centers and units to include mobility and student exchanges under SEAMEO-RIHED's ASEAN International Mobility of Students (AIMS) and for scholars through academic exchange and research collaborative programs (Abdul Aziz et al. 2015). The latter was primarily under the aegis of the ASEAN University Network (AUN) for collaborative arrangements within ASEAN and with international partners such as Japan, Korea, China and EU, where collaboration is in dire need of substantial funding. Such internationalization activities provide exposure and could also enhance study-abroad opportunities for university academics in Malaysia.

1.2.3 Policies for University Faculty Development

Although the development and implementation of policies for university faculty development in the private university sector are primarily internal matters for the university concerned, these universities, nonetheless, are regulated by the Ministry of Education/Higher Education and the Malaysian

Qualifications Agency (MQA) with respect to the academic, subject expertise and teaching credentials of the academic staff. The MQA has indicated that, to improve the quality of education, there must be strategies for the continuous upgrading of the quality and competencies of the faculty as follows:

The Higher Education Provider has to be committed to the upgrading of the academic qualification of its staff. Some of the measures to be taken include provisions for study leave to pursue further or advanced postgraduate qualifications and in-service training that aimed at enhancing the quality of academic staff and needs to be relevant, practical and technology-centered. The purpose of in-service training is to strengthen and reinforce academic staff with updated and critical knowledge and skills in order to enhance their capabilities for individual and institutional success (Malaysian Qualifications Framework 2014, 31–32).

MQA guidelines are also applicable to public universities, but in these institutions, it is almost mandatory for faculty staff to upgrade their expertise in terms of academic qualifications. This is because promotions to higher positions in the academic hierarchy are dependent on academic qualifications and other criteria, such as excellence in publications and research. It is important also to note that, in public universities, solely in-house progression among faculty and staff is strongly discouraged. This directly influences the need to study abroad for international exposure in both academic and non-academic matters.

The current academic staff development policies in public universities are primarily based on earlier decisions by the Ministry of Higher Education regarding the qualifications of academic staff in Malaysian research universities, which endorsed the recommendations of the Working Committee on Research Universities. As a result of the recommendations, no less than 60 percent of the academic staff in Malaysian research universities hold a PhD or equivalent qualifications. To a great extent, this has been a policy starter to upgrade the qualifications of academic staff. Study abroad is then the preferred option for Malaysian research universities to upgrade the qualifications of their academic staff.

1.2.4 Study Abroad in View of Faculty Development and Internationalization of Universities

The listing of top universities for study abroad at the PhD level, subspecialty, or post-doctoral internships is aimed at creating a pool of quality academic staff with teaching and research experience in reputable institutions abroad. Over the longer term, arguably, it is expected that, with Malaysian academics as alumni of these reputable institutions, further opportunities for networking with other reputable institutions can be established. Therefore, Malaysian public universities will be in a position to assert their status and reputation to the international community. Since 2007, all Malaysian public universities have had a center or unit that promotes study abroad, international mobility, and exchanges for the nonmonetary aspects of internationalization. Private universities normally multitask these centers as part of their promotional and marketing arm, with the monetary and then nonmonetary aspects of internationalization given due consideration. Balancing these matters has proven to be very difficult for many small local private institutions.

1.2.5 Domestic Scholarships for Faculty to Study Abroad

The Trustees for the Indigenous People (MARA) Study Loan Scheme was first introduced in 1966. These were available to *Bumiputera* pursuing postgraduate studies overseas. Financial assistance was then given out in the form of full scholarships. From 1968, financial aid for studying at universities was divided into two types: MARA scholarships with a 25% repayment and MARA study loans with a 100% repayment. The repayment period for the loan was not strictly mentioned and enforced.

From January 1, 1985, until December 31, 1997, financial aid took the form of convertible loans. Students who obtained good grades upon graduation were eligible to apply to convert their MARA study loans to MARA scholarships. It is the condition of the sponsorship that students must gain admission to

a Top 50 University based on the QS World University Rankings by Faculty or Times Higher Education (THE) World University Rankings by Subject, or universities listed by the relevant division in MARA. While MARA's sponsorship was initially targeted at the rural and bottom 40% of households (B40), MARA increasingly gave study loans for studying abroad at the postgraduate level, thus providing a pool of qualified academics for private higher education institutions. While academics in the public higher education sector could rely on the sponsorship of the MOHE, MARA loans were an important source of funding for study abroad among academics in the private higher education sector.

Between 2006 and 2018, MARA sponsored 23,410 students to study abroad. Of this total, the UK, Australia and Egypt accounted for almost 60%. The number of sponsorships for studying abroad peaked in 2013 with 3258 study abroad sponsorships. Since 2014, sponsorship from MARA has declined quite dramatically to less than 50 as of August 2018. For its study abroad program, MARA gave priority to students studying Science, Technology, Reading, Arts, and Music (STREAM) subjects.

For academics in the public higher education sector, both in the pre-service and in-service categories, the public universities themselves, and later, the MOE/MOHE sponsorships were very important for funding study abroad opportunities. In the 1970s and early 1980s, all public universities provided sponsorship for their serving academic staff to further their studies abroad. These academic staff would receive their salary plus other allowances while studying abroad. These public universities would also provide sponsorship for future academic staff under the *Bumiputera* Academic Training Scheme (SLAB). Under SLAB, recipients only receive various allowances while studying abroad as they are not considered to be academics but are instead undergoing pre-service training. In late 2000, sponsorship of academic staff (in-service and pre-service) was centralized at the MOE/MOHE for better resource utilization and coordination in human resource development planning.

In 2016, the MOHE reviewed the criteria and implementation of the two training schemes for academic staff: the *Bumiputera* Academic Training Scheme (SLAB) and Higher Education Institutions Academic Training Scheme (SLAI). It was decided that those undergoing further training or study abroad at the PhD level must gain admission to a university listed among the 100 best universities based on the THE World University Ranking or 50 best universities on the QS University Ranking by Subject. For further training at the subspecialty level for academics in the medical and health-related fields, academic staff concerned must gain admission to a university in the top 50 universities based on the THE World University Ranking, or one of the top 50 universities based on the QS University Ranking by Subject. Notably, these two conditions are not applicable if the academic staff member is undergoing a period of training or study abroad in a hospital/private health institute/or public health institute. For post-doctoral programs abroad, an academic staff member must spend their internship period at a top 50 university based on the THE World University Ranking or a top 50 university based on the QS University Ranking by Subject. However, in 2017, the MOHE decided not to adopt the list of top universities based on the THE World University Ranking as a condition for the award of funding for studying abroad under these two training schemes. Since then, to study abroad at the PhD level, an academic staff has to gain admission to a top 50 university based on the QS University Ranking or a top 50 university based on the QS University Ranking by Subject.

Between 2011 and 2018, the MOHE provided sponsorships to 2250 academic staff to study abroad. Just over 50% of the total went to the UK, with an additional 16% going to Australia. The number sponsored for overseas study peaked in 2015 (631), and there has been an observed decline in the number of students sent abroad since then.

1.2.6 International Aid/Assistance from Developed Countries and International Organizations for Sending Faculty Members Abroad

As a middle-income country moving toward a high-income country status, Malaysia does not qualify for substantial international aid or assistance from developed countries. However, there are bilateral collaborative academic and exchange arrangements with developed countries or with international organizations. These bilateral agreements may not necessarily take the form of monetary aid to Malaysia.

(i) Islamic Development Bank

The Islamic Development Bank (IDB) is a multilateral financial development institution based in Jeddah, Saudi Arabia. IDB was established to foster economic development and social progress in its member countries in accordance with the principles of Shariah—namely, Islamic law. The IDB is composed of 56 member countries across Asia, Africa, Europe and Latin America. IDB’s Merit Scholarship Program (High Technology) is one source of sponsorship for Malaysian academics and researchers to pursue a PhD qualification or for a post-doctoral internship abroad.

For the PhD program, this scholarship is tenable for a period of three years and for the following specified courses:

Health/Medicine
Agriculture/Food Manufacturing
Water Resources / Desertification
Nano Technology
Information Technology

The scholarship for the post-doctoral internship program is tenable for a period from 6 to 12 months, depending on the projects being undertaken by the recipients. The scholarship set several priority projects and objectives, such as studying factors relating to and finding solutions for diseases such as Ebola and malaria. Other priority projects related to issues pertaining to food production and water resources and desertification involving IDB countries.

The IDB has identified a list of priority universities for PhD and post-doctoral internships abroad as follows:

University of Cambridge
Queen Mary University of London
University of Nottingham
University College London
Copenhagen University (Denmark)
Princeton University (USA)
University of Birmingham
Imperial College London
KAUST (Saudi Arabia)

(ii) The Commonwealth Scholarship and Fellowship Plan (CSFP)

As a former British colony, Malaysia is a member of the Commonwealth. The CSFP is an international program under which Commonwealth governments offer scholarships and fellowships to citizens of other Commonwealth countries. The Plan was established at the first Conference of Commonwealth Education Ministers in 1959, and it is reviewed by ministers at their triennial meetings, the last being held (hybrid session) in Kenya in 2022. Among Commonwealth countries, this is a scholarship scheme that is accorded high-level recognition. The CSFP has been one of the primary mechanisms of pan-Commonwealth exchange since its inception. To date, over 25,000 individuals have held awards, and been hosted by more than 20 countries.

There is no central body that manages the CSFP. Instead, participation is based on a series of bilateral arrangements between home and host countries. The participation of each country is organized by a national nominating agency, which is responsible for advertising awards applicable to their own country and making nominations to host countries. In the UK, which is the biggest contributor to the plan, this process is managed by the Commonwealth Scholarship Commission in the United Kingdom.

1.3 Human Resource Development Policies and Strategies in Public Sector

1.3.1 General Overview

Human resource development policies and strategies in the public sector at the federal level are primarily under the jurisdiction of the Public Service Department (PSD). At the state level, various state governments have their own departments that develop policies and strategies geared to the needs of the individual states. However, it is the Federal Government, specifically the PSD, that provides sponsorship for study abroad among in-service civil servants. PSD also provides sponsorship for academically excellent students to pursue higher studies abroad. The offering of PSD scholarships for study abroad is in line with Malaysia's need for quality human capital, primarily in the civil service and in other sectors of the national development agenda. This policy is in line with national aspirations and needs, and it is occasionally implemented in cooperation with other developed countries. Normally, a government-to-government agreement is signed for this purpose.

1.3.2 Policies for Staff Development in the Government

The Public Service Department (PSD) is the main agency that develops and implements HRD policies in Malaysia. Its primary role is to ensure that the best human capital management system is in place to improve the effectiveness and efficiency of the Malaysian Civil Service. PSD continues to develop its HRD management systems, and typically, good practices in HRD are adopted. Its pre-service and in-service training policies are implemented to increase the productivity and efficiency of the government machinery. Through the management of salaries, allowances and facilities, the PSD attracts, develops and retains potential manpower toward performance excellence in public service.

As a newly independent nation in the late 1950s, study abroad was geared toward creating a pool of civil servants for the newly established government administrative machinery, particularly the manpower needs of agencies entrusted with the national development agenda. International agencies such as the UN and programs such as the Colombo Plan provided the necessary sponsorships for studying abroad in the 1950s and 1960s. In the 1970s, with the implementation of the New Economic Policy and the objective of restructuring Malaysian society, affirmative action policies for the *Bumiputera* were introduced as a major element in Malaysia's study abroad scheme.

Since 1982, with the exception of 1998, the Look East Policy was in place, and PSD provided study abroad opportunities—especially for study in Japan and, to some extent, South Korea. In 1999, with the resumption of the policy after Malaysia's recovery from the debilitating financial crisis of 1998, more study abroad opportunities were introduced for further studies in Japan and South Korea. However, study abroad in the UK was substantially reduced for both pre- and in-service staff in view of the high tuition and living costs. The trend to encourage studying locally was set in motion.

Since 2009, PSD study abroad schemes for Malaysians need to base their assessment on several aspects of the overall award, such as excellent academic performance of the candidate, Malaysia's ethnic composition, special consideration for *Bumiputera* from Sabah and Sarawak, and the representation of other socially disadvantaged groups in the award list. Noticeably, between 2013 and 2015, Malaysians targeted selected destination countries for study abroad. Arguably, higher education institutions in Malaysia are at par with many other higher education institutions abroad, and thus PSD needed to be selective on where to send students abroad. In addition, local higher education system and institutions had the capacity to absorb many of the academically qualified Malaysian students. Furthermore, many higher education institutions were capable of producing graduates required by industries and other employment sectors. Reducing opportunities to study abroad and retaining academically talented students to study locally would ultimately enhance the quality of Malaysian public universities. This approach augured well with Malaysia's aspiration to become an international hub of education excellence. Thus, since 2013, applicants receiving sponsorship for studies in STEM fields and social sciences could be sent abroad, whereas for courses in medicine, dentistry and pharmacy, sponsorships would be given for study in Malaysia.

Since 2016, sponsorship for further studies has been based on a convertible loan model. This model was designed due to the need to consider merit, inclusivity, the situation of the bottom 40% of households with monthly income below RM 4,360 in the year 2016 (B40). The later in particular could be burdened by loan repayment.

1.4 Study Abroad

1.4.1 Overview of the Historical Development of Study Abroad Programs

In the Malaysian context, study abroad programs are interpreted as either time spent abroad under a short-term exchange program or for a specified time for getting a qualification. Historically, studying abroad for a qualification began in the pre-independence period of Malaya to prepare Malaysians for a career in the civil service. This continued in the years immediately after Malaya gained its independence from the British. In fact, a steady wave of Malaysians studying abroad for a qualification continued into the 1970s as Malaysia was building its government institutions and machinery. Similarly, economic development began to be driven by the private sector, and the economic sectors were in dire need of qualified manpower. These developments have been well documented in the various national development plans since 1970.

A marked wave of study abroad programs were linked to partnerships between Malaysian higher education institutions and higher education providers abroad in the late 1960s. These partnerships were sustained over the years. Of some significance is the academic collaborative link between Institut Teknologi MARA (ITM) and Ohio University in the USA. The relationship started in 1968 with Ohio University establishing Business and Commerce programs with ITM (now UiTM). Ohio University professors would teach at ITM, and then ITM sent its lecturers, staff and students to Athens to start full residency programs at Ohio University. In 2009 and 2010, the Faculty of Communication and Media Studies in UiTM sent two groups of UiTM students to do an internship program at Ohio University. This engagement between Ohio University and UiTM has been sustained since then (Ohio University 2021). Based on the UiTM experience, MARA began to play a very active role in promoting study abroad through its affiliated institutions such as the University of Kuala Lumpur (UniKL) to establish collaborative programs with universities in South Korea, for instance.

Beginning in the 1980s, private higher education institutions in Malaysia were very aggressive in promoting study abroad via various twinning programs with universities in English-speaking countries such as the UK and Australia. This has allowed for split-time studies in Malaysia and at partner universities abroad. A requirement of the Ministry of Higher Education in the late 1990s has changed the course of this twinning program. The MOHE required that private higher education institutions in Malaysia aspiring for full university status needed to have full-blown homegrown academic programs and qualifications. This requirement subsequently eliminated the twinning degree programs at the undergraduate level with foreign higher education institutions. Interestingly, many of these institutions have continued to collaborate with institutions in Japan, South Korea and Europe under summer schools or university-industry internship programs to expose their students to inter-regional and intercultural aspects of student life. Admittedly, insofar as studying abroad for a qualification goes, the offer of transfer degree programs to the USA, Canada and Australia is still a major component of study abroad programs for Malaysians.

(i) Commonwealth Universities Study Abroad Consortium (CUSAC)

The Consortium aims to bring together like-minded universities to find ways of increasing mobility across Commonwealth countries at minimal cost with a spirit of reciprocity and mutual exchange. There are currently about 65 members from 21 Commonwealth countries and five regions (Commonwealth Universities Study Abroad Consortium (CUSAC) 2018). Through the bilateral linkages of its members, CUSAC extends the benefits of studying abroad to a wider group of students across the Commonwealth. As an umbrella organization, it enables its members to share and access information through networking and benchmarking events as well as electronically. It also administers a bursary program aimed at

assisting student exchanges between member universities. Malaysia is a member of the Commonwealth, and many public universities in Malaysia are members of the Association of Commonwealth Universities (ACU).

(ii) Commonwealth Scholarship Commission in the United Kingdom (CSC)

The CSC is responsible for managing the United Kingdom's contribution to the Commonwealth Scholarship and Fellowship Plan (CSFP). Since its establishment by an Act of Parliament in 1959, more than 16,000 Commonwealth citizens have held awards in the UK. The CSC's secretariat is provided by the Association of Commonwealth Universities (ACU), while financial and welfare support for scholars is provided by the British Council (Commonwealth Scholarship Commission in the United Kingdom (CSC 2018); Commonwealth Scholarship and Fellowship Plan (CSFP) 2018)).

The CSC makes available seven types of awards: scholarships for PhD research; scholarships for master's study; Shared Scholarships (master's awards selected and jointly funded by universities); Academic Fellowships for staff serving in developing country universities; Split-site Scholarships for PhD students to spend up to one year in the UK; Professional Fellowships for mid-career professionals in developing countries; and Distance Learning Scholarships for developing country students to study master's degree courses.

(iii) British Chevening Scholarships for International Students

Chevening is the UK Government's international awards scheme aimed at developing global leaders. Funded by the Foreign and Commonwealth Office (FCO) and partner organizations, Chevening offers two types of awards, Chevening Scholarships and Chevening Fellowships, the recipients of which are personally selected by British embassies and high commissions throughout the world. Chevening offers a unique opportunity for future leaders and influencers from all over the world to develop professionally and academically, network extensively, experience UK culture, and build lasting positive relationships with the UK (British Chevening Scholarships for International Students 2018).

(iv) Chinese Government Scholarship-Bilateral Program (Malaysia)

During the 18th ASEAN-China summit in Kuala Lumpur, Malaysia, on November 21, 2015, Chinese Premier Li Keqiang made a commitment that China would increase the number of government scholarships for ASEAN countries by 1,000 on the basis of existing scholarships over the next three years. Thus, China has offered 50 newly added scholarships to Malaysia since 2016. Applicants can apply under the Chinese Government Scholarship-Bilateral Program. Under this bilateral arrangement, places are available for general or senior scholar/undergraduate/master/doctoral programs (Embassy of the People's Republic of China in Malaysia 2018).

(v) The Government of Japan (Monbukagakusho: MEXT) Scholarships

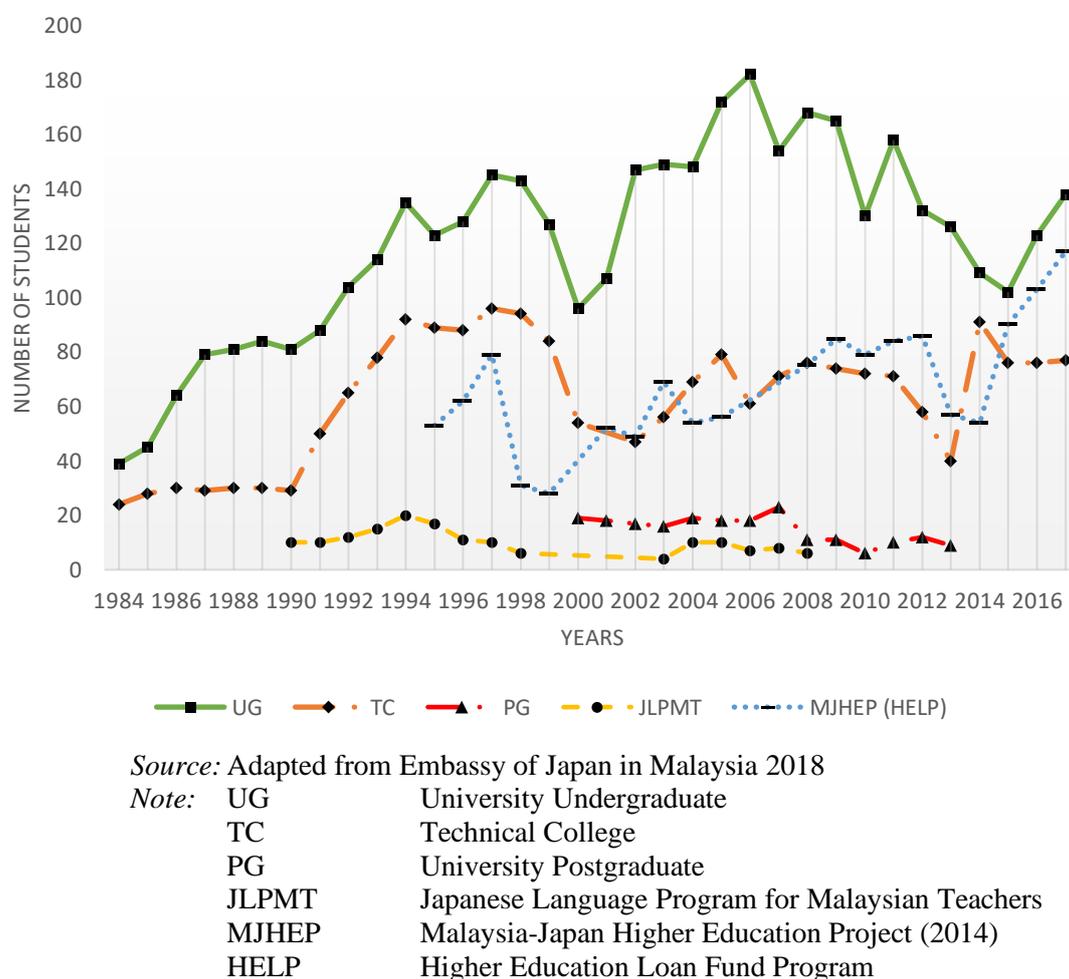
The Government of Japan offers the following scholarship programs each year for Malaysian nationals to apply (Embassy of Japan in Malaysia 2018a).

- Undergraduate Studies
- Postgraduate (Research Student)
- Young Leaders' Program (YLP)
- Japanese Studies
- Teacher-Training

In July 1981, Dato' Seri Dr. Mahathir bin Mohamad became the Prime Minister of Malaysia. After six months in office, he announced an initiative to learn from the experiences of Japan (and Korea) to promote nation-building in Malaysia. This was based on his belief that the secret of Japanese success and its remarkable development lies in its labor ethics, morale, and management capability. He felt a

program that enables young Malaysians to learn in Japan would contribute to the economic and social development of Malaysia. For this purpose, Malaysia decided to dispatch its students to Japan, not only to build academic knowledge and technical know-how but also to learn about labor ethics and the discipline of the Japanese people (Embassy of Japan in Malaysia 2018b).

Figure 1.1: Number of Malaysian students in Japan sent by the Malaysian Government under the Look East Policy



Source: Adapted from Embassy of Japan in Malaysia 2018

Note: UG University Undergraduate
 TC Technical College
 PG University Postgraduate
 JLPMT Japanese Language Program for Malaysian Teachers
 MJHEP Malaysia-Japan Higher Education Project (2014)
 HELP Higher Education Loan Fund Program

This initiative is called the "Look East Policy" and the program is comprised of two parts. The first was to send Malaysian students to Japanese universities and institutes of technology. From Figure 1.1, the sending of Malaysian students under the Look East Policy declined between 1997 and 2000. But this decline was compensated by the steep increase of Malaysian students going to Japan under the Higher Education Loan Fund Program (HELP), starting in 1999. The second was to send trainees to Japanese industries and training institutes. These programs were funded by the Government of Malaysia, and the Government of Japan supported these programs by sending Japanese teachers to Malaysia with some element of cost-sharing (Embassy of Japan in Malaysia 2018b).

In May 2018, Tun Dr Mahathir assumed the premiership of Malaysia for the second time and indicated that this Look East Policy would not only be revived but also undertaken on a bigger scale (The Star 2018; New Straits Times 2018). Prime Minister Tun Dr. Mahathir Mohamad pointed to education, training and investment as being among the areas that Malaysia and Japan could benefit from working closely with each other.

(vi) Australia's Endeavour Leadership Program

The current Endeavour Leadership Program (ELP) is the Australian Government's two-way mobility program for short- and long-term study, research, and professional development with Australia's priority

partner countries (Endeavour Leadership Programme 2018). The ELP supports Australia's first National Strategy for International Education 2025, which sets out a ten-year plan for developing Australia as a global leader in education, training, and research through creating transformative partnerships and expanding student education and training, as well as professional and research mobility. The ELP provides opportunities for established and emerging leaders in Malaysia to undertake a global mobility experience within their study, research, or professional field in a higher education institution in Australia. In addition, Malaysia will have the opportunity to build enduring international networks and strengthen education and research engagement with Australia (Endeavour Leadership Programme 2018).

(vii) DAAD (German Academic Exchange Program)

The German Academic Exchange Service, or DAAD, supports over 100,000 German and international students and researchers around the globe each year, making it the world's largest funding organization of its kind. Founded in 1925, more than 1.9 million scholars in Germany and abroad have received DAAD funding, and Malaysians have benefited from this program. DAAD promotes internationalization efforts at German universities and helps Malaysia strengthen and internationalize its higher education system and institutions. As of May 2018, DAAD reported the statistics on new offers of scholarships and other funding to Malaysians for various programs, including mobility (DAAD Malaysia 2018).

(viii) MACEE - Fulbright Malaysian Scholar Program (MACEE)

MACEE was founded in 1963 as a binational commission for Malaysia and the United States to promote educational exchange between the two countries. MACEE's founding document is a bilateral agreement ratified by the Malaysian and the United States governments. Although the focus lies on the Fulbright Grant programs, over the years, MACEE has played an increasingly larger role in the overall binational educational partnership Malaysia-American Commission for Education Exchange (Malaysia-American Commission for Educational Exchange 2018a).

Today, MACEE houses two important sections: the Fulbright program and Education USA Malaysia. Of relevance here is the Fulbright program. The Fulbright program was established when President Harry Truman signed legislation to use surplus war funding for international education exchanges. The aim was to increase mutual understanding between the people of the United States and people from other countries through classroom teaching and community engagement. The program eventually expanded and is now administered globally. The Fulbright section at MACEE is responsible for the administration of Fulbright grants and several non-Fulbright grants for Malaysians. The Fulbright program is known to have produced and enriched some of the biggest achievers in their respective fields, and the program in Malaysia is no different. The Malaysian Fulbright Scholar Program provides opportunities for Malaysian academics to develop or update their research through interaction with distinguished counterparts in the United States. By providing a mechanism and support for meeting and interacting with the best American scholars, the program seeks to promote dialogue on subjects of mutual interest to Malaysia and the United States (Malaysia-American Commission for Educational Exchange 2018b).

1.4.2 Alumni Networks (History, Activity, Members) Within the Countries

(i) Fulbright Alumni Association of Malaysia (FAAM)

The Fulbright Alumni Association of Malaysia was formed in 1998 (Malaysia-American Commission for Educational Exchange 2018c). The alumni were first mooted on April 12, 1996, and formally registered in mid-1997. It seeks to galvanize the vast and varied interests of Malaysians and the US Fulbright community in furtherance of the Fulbright vision. The main purpose of the association is to function as a forum to exchange opinions and to strengthen social and professional relationships among the members of the association toward the development of J. William Fulbright's goals of professionalism and individualism for all members. In addition, the association also seeks:

- (a) to plan, arrange and carry out projects, activities or programs on community development and to enable members of the association to contribute knowledge, expertise and experiences in particular fields related to the community at large;
- (b) to plan and arrange relationships between the association and agencies, institutions and other individuals in order to ease the members of the association to contribute knowledge, expertise, and experiences of their particular field, for the development of the community;
- (c) to create and strengthen relationships between the association and agencies of the Fulbright Program organizer in the United States and other alumni associations around the world for the development of professionalism and sociality of the Association members; and
- (d) to set up and manage a trust fund to sponsor and fund community-level projects.

(ii) Australia Global Alumni

The Australia Global Alumni website is a virtual global network to connect, build and invigorate the international community of scholars who have studied in Australia, as well as Australians who have studied overseas. This website supports alumni to continue building on their educational and cultural experiences. It provides them with opportunities to participate in ongoing personal and professional development and to network with other alumni. The website includes content of general interest to alumni, such as news articles, public events and alumni stories from a range of sources, including the Australian Government, academic institutions, industry experts, businesses, and the alumni themselves (Australia Global Alumni 2018).

(iii) German Alumni Association of Malaysia

The German Alumni Association of Malaysia, founded on September 29, 2003, has the following aims and objectives for membership (German Alumni Association of Malaysia 2018). The objectives are as follows:

- (a) to foster cooperation and fellowship among its members;
- (b) to share German experience in business, trades, education, training and culture;
- (c) to contribute to the economic development of the country through the dissemination of new concepts in science and technology, advanced management techniques, and other useful information;
- (d) to provide assistance and re-orientation for those who have undergone studies and training in German;
- (e) to assist with professional development;
- (f) to give advisory and consultancy services to organizations on matters concerning management, technology, and development programs; and
- (g) to network with other similar organizations or societies and industry for the furtherance of education and training.

(iv) The Malaysian Australian Alumni Council (The MAAC)

The MAAC, with its 15-member executive, was formally registered in November 1999 as the national organization for Malaysian alumni associations of Australian universities and other institutions of higher learning (Malaysian Australian Alumni Council (MAAC) 2018). Since its formation, MAAC has

successfully organized many activities and worked with various organizations and individuals to bring together Malaysian graduates from Australian Universities and other institutions of higher learning through their respective Alumni Associations and representatives. MAAC represents and serves its member entities on various issues related to Malaysia-Australia relations and organizes social events.

(v) Japan Graduate Association of Malaysia (JAGAM)

The concept of JAGAM, the acronym for Japan Graduates' Association of Malaysia, was conceived as early as 1970 by a group of 22 Malaysian graduates from Japanese universities. The aims and objectives of JAGAM, stated in its Rules and Constitution, are as follows (Japan Graduates Association of Malaysia (JAGAM 2007):

- (a) to promote, encourage and foster civic, social and cultural activities amongst members of the association;
- (b) to advise, aid and guide members on their return to Malaysia with respect to opportunities of employment and conditions of employment;
- (c) to advise, aid and guide intending students and postgraduate students who will be or are furthering their studies in Japan;
- (d) to promote goodwill and better understanding between Malaysia and Japan.

(vi) The Alumni Look East Policy Society or ALEPS

In 1988, upon the return of the first batch of graduates from Japan, ALEPS was established under the initiative of the Public Service Department of Malaysia. The society comprises former graduates of Japanese universities and technical colleges and is under the patronage of Tun Dr. Mahathir Mohammad and Royal Professor Ungku Abdul Aziz (ALEPS, 2018).

ALEPS assists newly selected Malaysian students for study in Japan and organizes orientation programs and forums. Every year, ALEPS organizes motivational forums to help students prepare for the MONBUKAGAKUSHO examinations. ALEPS also helps students to adapt to Japanese culture by sharing their experiences and knowledge.

ALEPS has the following objectives:

- (a) to support the Look East Policy implementation by the government and to pursue the policy's objectives;
- (b) to realize technology transfer from Japan;
- (c) to assist government agencies in enhancing mutual relationships with Japan;
- (d) to organize training and leadership programs for members to enhance their career development.

1.5 International Aid and Cooperation for Higher Education Sector

As noted above, Malaysia is not a major beneficiary of international donor/aid programs in monetary form from developed countries. However, it has benefited, for instance, from ADB Regional (not Malaysia-specific) Cooperation Technical Assistance programs (EEAS 2013). Malaysia has graduated from the Canada International Development Agency (CIDA), and thus, Canada provides a very limited number of higher education scholarships (EEAS 2013). In general, however, from 1960 to 2004, official development aid to Malaysia increased from US\$12.8 million to US\$289.5 million per year—an

increase from US\$1.56 per capita in 1960 to US\$11.49 per capita in 2004. Approximately 99% of official development aid in 2004 was bilateral aid, and nearly all of this came from Japan. In mid-2000s, Malaysia presented itself as a donor-recipient identity founded on a “prosper-ty neighbor” and “soft power-mutual power” strategy, especially in relation to the higher education sector. Malaysia engaged mutually through trilateral and multilateral development cooperation mechanisms (Carle 2015). In 2007, official development assistance and aid equaled only 0.11% of Malaysia’s GDP. Arguably, Malaysia is, to a large extent, independent of international aid, especially for its higher education sector.

There are some bilateral arrangements between Malaysia and aid countries/agencies as follows.

- (i) The New Zealand Aid Program offers scholarships to people from Malaysia who are motivated to make a difference at home.

New Zealand Commonwealth Scholarships

New Zealand Commonwealth Scholarships are prestigious scholarships that recognize New Zealand’s history and ties with the Commonwealth. Commonwealth Scholarships are part of the Commonwealth Scholarship and Fellowship Plan (CSFP) - an international program under which Commonwealth countries offer scholarships and fellowships to citizens of other Commonwealth states (CSFP, 2018). The purpose of the scholarships is set out in the CSFP with the following key principles:

- (a) to promote mutual cooperation and share educational experience among all Commonwealth countries;
- (b) to make the scholarship available across the Commonwealth; and
- (c) to recognize and promote the highest level of intellectual achievement.

NZ Commonwealth Scholarships are funded by the New Zealand Aid Program, the New Zealand Government’s overseas aid and development program. They are managed by the New Zealand Ministry of Foreign Affairs and Trade.

- (ii) The Higher Education Loan Fund Project (HELP)

HELP in Malaysia is a developmental assistance program provided by Japan to the Malaysian government. Founded in 1992, it provides financial assistance to Malaysian students who seek to obtain higher education in Japan. HELP2 (also known as the Twinning Program) consisted of one year of preliminary education and one year of college-level education before entering a Japanese university as a second-year student. HELP2 was a more advanced version of HELP1, running from 2001 until 2005. HELP3 started in 2005 and comprised one year of preliminary education plus two years of university education before transferring to a Japanese university as a third-year student. HELP3 was implemented as a means of updating the system by improving the local education of the target country. While HELP2 included the entire field of science and engineering, HELP3 focused on “electromechanical” and “mechanical engineering.” In 2014, the Malaysia Japan Higher Education Project (MJHEP), funded by the Malaysian government, was introduced as a continuation of HELP3.

- (iii) The Islamic Development Bank financing package for Higher Education Sector

In most instances, many international organizations provide loans to Malaysia to strengthen its higher education institutions. For instance, the Malaysian government recognized USM as a research university in 2005, and in 2006, the Islamic Development Bank (IDB) provided a USD\$38 million financing package that would help USM install modern and state-of-the-art teaching and research facilities (Islamic Development Bank 2017). Subsequently, the curricula were transformed to focus on market demand, and graduates were prepared to be absorbed into major industries such as engineering, medicine, science, and technology.

(iv) EU and Malaysia – Cooperation for Human Capital Development

The cooperation between the EU and Malaysia had almost reached a standstill by 2003, with little ongoing bilateral cooperation and Malaysia being a strikingly marginal beneficiary of EU-funded regional cooperation programs. Since the opening of the EC Delegation in April 2003, the cooperation between EC/EU and Malaysia has improved, and since then, this trend has gained strength. Seminars and conferences are paving the way for the more active involvement of Malaysia in the EU-funded Research Framework program, while in the higher education sector there are prospects for greater cooperation in the field of human capital development in Malaysia (EEAS 2013).

1.6 Historical and Empirical Reviews of the Impact of Study Abroad

In the past, Malaysia did not have a systematic process to evaluate the performance of Malaysians who had studied abroad. There were only anecdotal insights highlighting the benefits of studying abroad, as reported by various alumni associations and picked up by the local press. Returning students' employability and socioeconomic contributions in their home countries have important policy implications but were never traced in a systematic manner. This failure to carefully track its return on investment on the part of the government, especially regarding the contributions of returning students to the national economic and social development needs to be addressed.

Public Service Department (PSD) scholarships are some of the most sought-after scholarships by Malaysians, as recipients would be adequately funded by the government to pursue their tertiary education. In addition, in the past, recipients of these scholarships would be guaranteed jobs in the public sector. In the recent past, a majority of recipients would be sent abroad for further studies, even though initial preparatory studies may be undertaken locally.

In the context of the changing global higher education scenario and geopolitics, the activities of students returning to their home countries after a period of studying abroad have raised several important national security issues. The increasing focus on international education and the internationalization of higher education, focusing on global citizenship, and greater understanding and cooperation at the global and regional level are the oft-quoted benefits of studying abroad. However, at the other end of the cost-benefit spectrum, there is always the possibility of returnees bringing back with them ideologies that are seen as not in the interest of the nation. While the issues of brain drain, brain gain, and brain circulation are too familiar to Malaysian policymakers and the public when discussed in the context of economic development, the implications of Malaysians studying abroad in volatile regions, such as the Middle East, for Malaysian political stability and national security have been seen as an issue that demands urgent policy response. Arguably, the higher education sector and study abroad programs could be viewed as a major contributing factor to this predicament. Admittedly, Malaysians studying abroad are exposed to different cultural and social norms, as well as political ideologies, which they may try to introduce into Malaysian society upon their return. The openness of Malaysian society and the democratic structure of the political system have made the introduction of foreign ideologies far easier than it would be in a less democratic nation. Indeed, in one of his first speeches in the aftermath of the Arab Spring, delivered to the Malay Student Association at Oxford University on 17 May 2011, then-Prime Minister Najib Razak propagated “justly balanced moderation” (Bulent and Ekim 2015).

Nearly 47,400 Malaysian students went abroad for higher education in 2005, with the outbound count expanding to just under 65,000 students by 2015. Roughly six of every ten students flow on to the UK, Australia, or the US. However, Malaysian enrollment overseas was widely distributed outside of those top three destinations, with host countries in Africa (Egypt), the Middle East (Jordan), Europe (Russia, Ireland, France, Germany), and Asia (India, Japan) rounding out the top ten study destinations (INCEF Monitor 2017). Despite the call for Malaysians to continue their studies locally, many are still contemplating studying abroad. It is interesting to note that this trend—along with the withdrawal process of the UK from the EU (BREXIT) and collaboration through flows of students between the Commonwealth, including Malaysia—would enhance collaboration further. Underlying these

collaborations would be reported cases of shared experiences, common visions, and the use of the English language in the higher education sector (Baker 2018).

There are plenty of anecdotal insights on the impacts of studying abroad for individual students. For instance, Rashidah and Nor Azlah (2016) examine the impact of studying in the UK on Malay/*Bumiputera* students. Arguably, being abroad greatly facilitates understanding and competencies in a foreign language—in this case, the English Language. The Star (2010) reported the case of Dinesh Kanavaji, 31, a practicing lawyer in Malaysia. Dinesh studied law in Britain in the late 90s. His two-year course cost him about £15,000 a year or about RM90,000 annually, given the high exchange rate at the time. To Dinesh, studying abroad was a character-building experience. In addition, studying abroad also provided a unique opportunity for language and cultural immersion. Umi Aisah Asli et al. (2017) reported the beneficial results of their international study experience based on the preparation of a reflection journal. Evidently, exchange students highlighted many personal and social development aspects in the reflective journal.

1.7 Conclusion

Since Malaya's independence in 1957 and, subsequently, after the formation of the Federation of Malaysia in 1963, studying abroad in the UK and Australia has continued as a trend among Malaysians. Later, studying in the US became more fashionable. The Asian financial crisis changed this trend as it was too expensive for parents to support their children studying overseas, especially in the UK. It was also too costly for the government to sponsor Malaysians to study overseas. In view of the various predicaments and in order to deal with the problems at that time, higher education reforms were undertaken. Various laws were introduced to regulate and supervise the higher education system and institutions with a view toward improving the quality of higher education provision in Malaysia. Study abroad continues but on a lesser scale and is directed to specific countries with specific objectives.

A case in point is study abroad in Japan. As local universities have proved to be of quality and many international branch campuses of reputable universities have been established in Malaysia, the outflow of Malaysians to study abroad has been significantly reduced. Since mid-2000, there has been a steady inflow of international students to Malaysia. This inflow of international students has encouraged internationalization initiatives at the institutional and system level. However, realizing that international exposure for intercultural understanding and competencies are important short-term study abroad objectives, exchanges and other forms of mobility were also encouraged and supported.

Admittedly, we cannot fully understand the impact of studying abroad without a “purposeful and systematic engagement” with the returnees and a commitment to making the most of what they have to offer following their experience abroad (Rumbley 2014).

Part II: Internationalization and Study Abroad at the Institutional Level

2.1 Universiti Sains Malaysia (USM)

2.1.1 Overview of USM, Penang Development History

Penang (spelled Pinang in Malay) was once part of the Sultanate of Kedah, and the history of the island is intertwined with the history of the sultanate. It has been asserted that Penang Island was, during this period, the jewel in the Kedah Crown (Merican 2014).

In 1786 Captain Francis Light of the British East India Company landed on the island of Penang. Due to the strategic location of Penang and its main settlement of Tanjung (as George Town was known to earlier settlers and inhabitants), Francis Light felt the early port settlement would make a suitable trading base for the company in the Malay Peninsula. In fact, Penang and specifically George Town was already an important trading base for the Sultanate of Kedah prior to Francis Light's arrival. An agreement between Francis Light and the sultanate of Kedah with the British having to pay 6,000 Spanish dollars for Penang and later a further 4,000 for Province Wellesley (the mainland of Penang state) to the Sultan of Kedah would be in perpetuity (Malaysian Culture Group n.d.). In 1867, Penang, Singapore and Malacca were established as a crown colony.

On August 31, 1957, British Malaya achieved its independence from the British, and Penang became a part of its 12 component states. Arguably, with a new government for an independent Malaya, there was an urgent need for skilled manpower to run the administrative machinery and implement development projects. With these developments providing the impetus, the approval for the resolution of the establishment of the Universiti Pulau Pinang in the state of Penang was secured on April 11, 1962. With the formation of Malaysia on September 16, 1963, challenges remained in terms of resources for planning and development, including human resources.

An important development that further supported the establishment of additional institutions of higher learning in Malaysia was the recommendations of the Higher Education Planning Committee. In 1967, the Committee recommended that a university be established primarily to focus on the education and training of human resources in the sciences. Subsequently, in June 1969, Universiti Pulau Pinang was officially established and began its operations from a temporary campus in Bukit Gelugor, Penang. Universiti Pulau Pinang is the second oldest public university in Malaysia, established roughly 20 years after the establishment of UM in Kuala Lumpur. In April 1972, Universiti Pulau Pinang was renamed Universiti Sains Malaysia (USM) to reflect its national character and focus on the sciences.

In the first year following its establishment, USM offered courses in the Natural Sciences via the School of Biological Sciences (1969), School of Chemical Sciences (1969), and School of Physics and Mathematics (1969). Realizing that the non-sciences were important for a balanced and holistic development of the human person, relevant courses were introduced at the beginning of the 1970/71 academic session. These courses were offered by the School of Comparative Social Sciences, the School of Cultural and Community Studies, and the School of Educational Studies, all of which were established in 1970.

With planned expansion in terms of faculties and student enrolment, in 1971, USM moved from its temporary premises at the Malayan Teachers' Training College, Bukit Gelugor, to the present 416.6-hectare site at Minden. Minden was a British military barracks between 1939 and 1971. The main campus at Minden has expanded physically, but its colonial character blended well with new buildings and the greenery of the campus (University in the Garden).

To ensure that USM would continue to play an important role in the national development agenda, in particular in supporting implementation of the NEP after the ethnic riots in May 1969, various programs were added to the original six schools. The new fields introduced in the early 1970s encompassed both the sciences and technology. In addition, to act as a feeder to the new courses in the sciences and technology, a foundation course in science was introduced in the 1970/71 academic session. With feeder

courses in place, the School of Pharmacy was established in 1972, and a year later, the School of Applied Sciences and the School of Housing, Building and Planning were established. Understanding the importance of policy research in a post-ethnic conflict situation, the Centre of Policy Research (CPR) was established in 1974. The priority for the center was to investigate inter-ethnic relations and poverty, which was generally regarded as one of the root causes of the ethnic conflict in 1969.

Mindful of the fact that public universities have an important role to play in addressing inter-ethnic imbalances in many professions, as indicated in the NEP launched in 1970, the School of Medical Sciences was established in 1979 to meet the high demand for medical doctors and also to address ethnic imbalances in the medical profession. Furthermore, in the context of the NEP objectives, courses related to technology and management were introduced in 1989—in particular, in fields such as civil engineering and, to some extent, in the field of management.

All of these developments provide an illustration of the history and development of USM in its socio-economic and political contexts. In fact, specifically in these contexts, besides the main campus in Minden, USM has a Health Campus at Kubang Kerian in the east coast state of Kelantan and an Engineering Campus at Seri Ampangan, Nibong Tebal on the mainland part of the state of Penang. The USM Health Campus started as a USM hospital in 1982 in the state of Kelantan, which has been shown to have above-average poverty rates and serious underdevelopment issues. The establishment of the USM hospital in Kelantan was meant to address regional imbalances in terms of health care facilities. It has expanded since the School of Medical Science was moved from the main campus in Penang to the present site in June 1984. In addition to the School of Medical Sciences, there are two other schools within the Health Campus—the School of Dental Science and the School of Allied Health Sciences. The third campus, the Engineering Campus was originally located at Tronoh, Perak, and named the Perak Branch Campus (KCP). After operating in the state of Perak for 15 years (1986–2001), the Engineering Campus moved to the present site in Nibong Tebal, Penang. The former USM campus in Perak is now the main campus for Universiti Teknologi PETRONAS (UTP).

It is important to note that the location of public universities in Malaysia is very much influenced by both political and socio-economic considerations at the national and provincial levels. Locational factors from a favorable geographical perspective seldom emerge as being of critical importance in the decision-making process. In fact, an unfavorable location is sometimes the preferred location due to equity considerations and for the purpose of stimulating socio-economic development in underdeveloped regions through the injection of public investment. Based on the literature on regional policy for the development of underdeveloped regions, the choice of such locations for public investment (in the form of establishing a university) makes sense, but in the final analysis, decisions were based on political expediency.

2.1.2 USM Development Policies and Strategies

The development policies and strategies that USM has generated and implemented since 1970 can be attributed to several important watershed developments at both the national and regional/international levels. Admittedly, these developments are not mutually exclusive in the sense that national changes/shifts are very much linked to changes/shifts in the global higher education landscape, particularly since the mid-1990s. These watershed developments are as follows:

- (i) the introduction of the NEP in 1970 and its mutations since 1990;
- (ii) the implementation of the Ninth Malaysian Plan 2006–2010 and the role of research universities in Malaysia's emerging knowledge economy based on the World Bank's Report on *Malaysia and the Knowledge Economy – Building a World Class Higher Education System* in March 2007;
- (iii) USM being accorded research university status in 2006;
- (iv) the launch of the National Higher Education Strategic Plan Beyond 2020 in 2007 (NHESP) and the concretization of the idea of an Accelerated Programme for Excellence (APEX);

- (v) USM was selected to participate in the APEX in 2008;
- (vi) the introduction of the Education Blueprint (Higher Education) 2015-2025; and
- (vii) the change in government at the federal level in May 2018, which redefined the relationships between USM and the federal government and USM and the state government of Penang.

The development of USM in 1970 occurred in the aftermath of the ethnic riots on May 13, 1969. Arguably, a federal government-funded higher education institution to be located in Penang, an area with an ethnic Chinese majority, would need to demonstrate federal government commitments to affirmative action for the *Bumiputra*, as laid out in the NEP.

Although USM was established as a higher education institution that was intentionally science-based, the structure and approach of this university from its foundation provided a balance in terms of its focus. The subsequent structure and curricula of the university were developed on the basis of such approaches; hence, the School of Cultural and Community Studies (later renamed the School of Humanities) was established a year after the official inception of the university, alongside the School of Comparative Social Sciences and the Centre for Educational Studies. Such an approach to the development of faculties in USM was primarily intended to produce a holistic and balanced focus in the education of students in a science-based university. Notably, for an extended period of time since its inception, students in the university were required to attend courses outside their major field of studies, underlining the synergistic approach to the humanities-social sciences and the sciences-technology interfaces at USM. In this respect, since the beginning, USM has adopted the school system rather than the traditional faculty system to ensure that its students experience a multi-disciplinary approach to higher education learning and research. It also encouraged students to be active in extra-curricular activities, given the myriad clubs and societies available. While much has changed since then in terms of course offerings and the curriculum, the idea of the interface and interaction between the non-sciences and the sciences and technology has been maintained in various forms and arrangements, not only in teaching and research but also in social and community engagement activities.

Between 1969 and 2022, USM developed and offered courses ranging from the Natural Sciences, Applied Sciences, Medical and Health Sciences, as well as Pharmaceutical Sciences, to Building Science and Technology, the Arts, Social Sciences, Humanities, and Education. As of 2021, USM has 26 Schools, 14 Centers and five (5) institutes. Seventeen (17) Academic Schools are part of the main campus on the island of Penang; six Schools at the Engineering Campus in Nibong Tebal (approximately 50km from the main campus); and three schools at the Health Campus in Kubang Kerian, on the East Coast of Peninsular Malaysia in the state of Kelantan. In addition, USM has an offshore USM-KLE International Medical Programme at the Karnataka Lingayat Education (KLE) University, Belgaum, India.

From Table 2.1, as of August 2022, USM has a total student enrolment of 35,019, and of this total enrolment, 6,573 or 18.8 percent are international students. 86.1 percent of international students are pursuing postgraduate qualifications.

Table 2.1: Student enrolment (as of August 2022)

	Local	International	Total
Under graduate	21,248	914	22,162
Post graduate	7,198	5,659	12,857

Source: Personal communication with Deputy Vice-Chancellor, Academic and International, USM

The development of the faculty and curriculum at USM and in India could arguably be assessed in the context of the socio-economic and political developments in Malaysia that have occurred since 1970. In reality, however, the market and internationalization of higher education since 2007, with the launch of the NHESP and the subsequent MEBHE 2015–2025 in 2015, were also important influential factors. Evidently, in all of its five-year national development plans since 1970, there were plans and strategies for human resource development and later human capital, which were always elaborated in relation to the development of the tertiary education sector, including public universities. From these plans, with new public universities being built and their increased capacity, the number of Malaysians going abroad for further study is expected to decline significantly.

The idea of “world-class” was discussed in the literature beginning in the late 1970s, particularly in relation to business organizations facing increased competition. In the early 2000s, the notion of the “world-class university” (WCU) began to emerge in the higher education literature. The concept specifically refers to a university that has a strong commitment to excellence in the quality of inputs, processes, and outputs, culminating in a worldwide reputation and top-ranked status (Shin and Kehm 2013). Since then, debates on the characteristics of the world-class university have continued to increase, especially in relation to global university rankings (Hazelkorn 2017). Admittedly, higher education is a focal enabler of the quality of human resources. Arguably, quality higher education is reasonably correlated with quality human resources.

In the context of the WCU debates, the notion of differentiation between research and comprehensive universities in the Malaysian higher education system was mooted. USM initiated an internal audit of its research programs in 2001 with a view to identifying those that could be nurtured and further developed into world-class programs (Lee 2004b). Based on the findings of the internal audit process, USM has laid out several initiatives to institutionalize a quality management mechanism to monitor, assess and improve research programs across the university.

The important role of research universities in the context of Malaysia’s knowledge economy gained traction in the Ninth Malaysian Plan 2006–2010. Before that, in 2004, the Ministry of Higher Education envisioned that “[a] research university seeks to actively participate in new adventures of ideas, experiment with innovative methods, and undertake intellectual initiatives.” This means that it seeks to

further discover and expand frontiers of knowledge” (Ministry of Higher Education 2004, 5). In this context, “[t]he mission of the research university is to be an engine of growth of the nation where scholars and students exchange ideas as well as conduct research in a conducive environment that nurtures exploration and creativity to discover knowledge and create wealth, leading towards an improved quality of life” (Ministry of Higher Education 2004, 5).

The World Bank’s report, *Malaysia and the Knowledge Economy: Building a World Class Higher Education System* (March 2007), provided supporting arguments for the establishment of the Malaysian Research Universities (MRU) network. Consequently, in 2007 USM was awarded research university status, together with three other public universities. This was intended to spur research, innovation and commercialization in the Malaysian university system. Based on its track record in research activities and its new status as a research university, the Ministry of Higher Education expected USM to focus on research, commercialization of research outputs, and the training of post-graduate students with targets for the numbers of international students and academic staff.

The agenda of research universities is arguably very much tied to excellence in higher education, with global university rankings adopted as a measurement of quality and excellence. As a research university, academic staff are expected to continuously engage in research and publications. Equally important, as a research university, USM undergraduate teaching is expected to have research elements incorporated in which students will be exposed not only to materials from textbooks but also the latest research findings by a faculty member teaching a particular course. It was envisioned that funding for research should be sourced from both the government and other national and international agencies.

This new status for USM was timely, as the National Higher Education Strategic Plan Beyond 2020 was launched in 2007. This strategic plan provided the context for funding, monitoring and evaluation of the

MRU. The Report on the Impact on the MRU as the engine of growth for nation building (Kementerian Pendidikan Malaysia 2014) identified four enablers, namely, (i) talent development, (ii) research prominence, (iii) wealth creation, and (iv) bridging the grand challenge. In all four, there is a need for international mobility and study abroad in order to create a pool of talented Malaysians who can drive the MRU agenda forward. Consequently, in the case of USM, new centers were established, and existing ones were enhanced based on the internal audit that was undertaken. These centers should contribute to both USM and the nation's research outcomes.

As of 2020, USM has 13 Centres of Excellence (COE) and three Higher Education Centres of Excellence (HiCOE). The dedicated research centers cover a wide range of specializations, including archaeology, medicine and dentistry, molecular medicine, science and technology, Islamic development and management studies, higher education policy research, socio-economic policy research, and international studies. The three HiCOEs are the Institute for Research in Molecular Medicine (INFORMM), River Engineering and Urban Drainage Research Centre (REDAC) and the Centre for Drug Research. The 13 COEs (as of 2020) are as follows:

- Collaborative Microelectronic Design Excellence Centre (CEDEC)
- Centre for Islamic Development Management Studies (ISDEV)
- Centre for Chemical Biology (CCB)
- Centre for Global Sustainability Studies (CGSS)
- Centre for Policy Research and International Studies (CenPRIS)
- National Advanced IPv6 Centre (NAv6)
- National Higher Education Research Institute (IPPTN)
- Centre for Instructional Technology and Multimedia (PTPM)
- Centre for Global Archaeological Research (PPAG)
- Centre for Research on Women and Gender (KANITA)
- Centre for Marine & Coastal Studies (CEMACS)
- Advanced Medical & Dental Institute (AMDI)
- Institute of Nano Optoelectronics Research and Technology (INOR)

Some (research) centers also provide consultancy, testing, and advisory services for industry under the oversight of USAINS Holdings Sdn Bhd, the University's commercial arm.

In its quest to push quality and excellence in the Malaysian higher education system and institutions, the NHESP has introduced an action plan to achieve an Accelerated Program for Excellence (APEX), with a university selected to pursue this agenda (Universiti Sains Malaysia, April 2008). In September 2008, the Ministry of Higher Education, based on the recommendations of a special committee that assessed and evaluated submissions by Malaysian universities, selected USM to participate in the APEX agenda (Table 2.2). As a university guided by the Ministry's APEX agenda, not only has USM pursued the sustainability-led agenda that it was selected for, it has also initiated and introduced innovations into the higher education system. Arguably, USM has poised itself as a point of reference for Malaysia and internationally in the process of transforming the Malaysian higher education system.

Table 2.2: Seven criteria underpinning USM’s selection to participate in the APEX Agenda

There are several reasons why USM was selected to implement the APEX programme	
1	Outstanding achievements in teaching and learning programs as well as research and innovation justify awarding Universiti Sains Malaysia the status.
2	Universiti Sains Malaysia is in best position to achieve world-class university status. Universiti Sains Malaysia has also developed basic infrastructure to compete globally and to attract quality employees as well as local and international students.
3	Universiti Sains Malaysia is the only university to receive five-star recognition by the Malaysia Qualification Agency (MQA) and this makes Universiti Sains Malaysia the best university in term of research and contribution to the community.
4	Universiti Sains Malaysia’s sustainability programme was acknowledged by the United Nations University’s Regional Centre of Expertise (UNU-RCE) in 2005.
5	Universiti Sains Malaysia has created a structured and systematic research programme in line with the integration between science and arts.
6	Since 2004, Universiti Sains Malaysia has rolled out institutional plans for the future up to 2025. This plan outlines a number of global reach features and also programs with sustainability-led concept.
7	In 2007, Universiti Sains Malaysia was selected by the Ministry of Higher Education as one of four research universities in Malaysia.

Source: Universiti Sains Malaysia 2014, vii

As the university selected to participate in the APEX initiative, USM has adopted a two-stage approach toward achieving the APEX goals. First, USM intends to be world-renowned for its sustainability concepts. Second, USM aims to be a leader in the sustainability process (Universiti Sains Malaysia 2014). To this end, USM has embarked on several initiatives to give meaning to campus sustainability through the redesign of learning programs and research activities in ways that are sensitive to environmental and social sustainability. USM’s aspirations, as clearly noted in the Transforming Higher Education for a Sustainable Tomorrow document, are for USM to emerge as a pioneering transdisciplinary research-intensive university that empowers future talent and enables the bottom billion people to transform their socio-economic well-being.

Based on the preceding description, USM development policies and strategies since the 1980s have been very much guided and influenced by the fact that it is funded by the national government and operates from seven different locations. However, there are three major campuses—namely, the main campus on the island of Penang, the Engineering Campus on mainland Penang, and the Health Campus on the East Coast of Peninsular Malaysia. In the case of the latter, such a peripheral location was selected in order to provide a boost to the socio-economic economic development of a lagging state and, at the same time, to improve access to better health facilities for the largely rural population. It is important to note that, in Malaysia, the location of public institutions such as universities and other federally funded higher education institutions is generally influenced by decisions at the national level. Therefore, it is not uncommon for the national government to consider the strategic and developmental interests of each state. In some states, however, the relationship between the national government and the state is such that national policy is usually linked vertically, with public universities in the state having limited links with other agencies in the same state.

2.1.3 Recognition and Achievements

Driven by the Research University and APEX Agenda, some of the more important accolades that USM has received since 2018 are listed in Table 2.3. Other awards and acknowledgments are listed in Appendix 1.

Table 2.3: USM – Recognition and achievements (not exhaustive)

	2018	2019	2020	2021	2022	2023
THE GIR Ranking	-	49	65	39	4	-
THE-WUR	601-800	601-800	601-800	601-800	601-800	
THE-AUR	162	150	156	163	157	143
QS-WUR	264	207	165	142	147	143

Note: THE GIR Ranking = Times Higher Education Global Impact Rankings; THE-WUR = Times Higher Education World University Rankings; THE-AUR = Times Higher Education Asia University Rankings; QS-WUR = Quacquarelli Symonds World Education Rankings

2.1.4 Study Abroad Among Faculty Members

The development trajectory of USM campuses in Penang and the state of Kelantan since its establishment, particularly since the 1980s, has necessitated explicit plans for the development of a pool of talents over time. Notably, these plans were designed and executed together with several central agencies at the federal level, including the Public Service Department, the Ministry of Education/Higher Education, and other sponsoring government-linked agencies and statutory bodies. Together, USM and these central agencies have designed and implemented funding arrangements and mechanisms to send academic staff abroad for further studies. It is important to note that the various funding mechanisms and sponsoring arrangements between USM and the central agencies have evolved since the 1970s. Financial allocations for the purpose of studying abroad and the relationship between the ministry and public universities are the primary determining factors for the evolving arrangement.

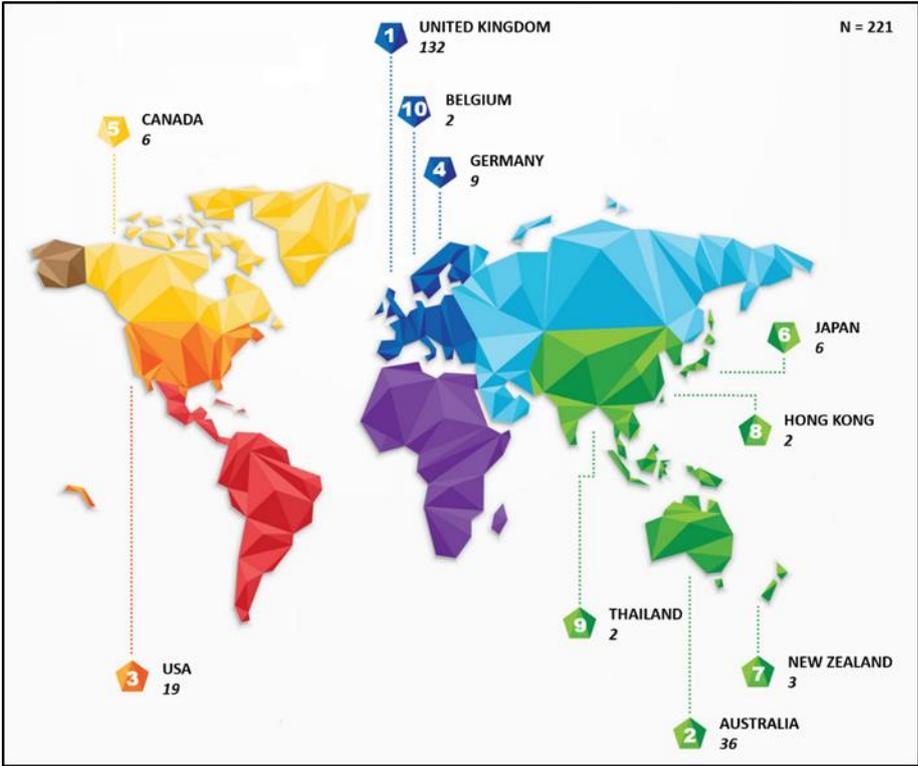
In the late 1970s, many potential candidates were selected and funded to pursue qualifications at the master's and doctoral levels overseas, particularly in the UK, Australia, and to some extent, the USA. The sponsoring arrangements between the central agencies and USM through programs were successful in building capacity and talent, not only in critical fields such as medicine and health, engineering and technology but also in the humanities, the arts and the social sciences. This includes programs such as Academic Staff Higher Education Scheme (ASHES) for in-service staff, the *Bumiputera* Academic Training Scheme (SLAB), Higher Education Institutions Academic Training Scheme (SLAI), and the Academic Staff Training Scheme (ASTS). Academics benefitting from these programs subsequently developed and led the schools in adopting and adapting curricula to provide more of an international flavor. They were familiar with the details of these overseas curricula, as they have studied abroad. Many have also assumed top management positions in USM since the late 1980s. Many have long since retired from university service. For instance, in 2006, all of the top management of USM (the Vice-Chancellor, three Deputy Vice-Chancellors, and 25 deans) of schools had studied abroad. In 2010 and 2013, all top management of the university (numbering 27 in total) had been trained overseas. In 2016 and 2018, of a total of 27 top management position-holders, just four had not studied overseas and these were the deans of schools. In fact, these four had never studied abroad, whether for their basic degrees, Master's degrees or PhDs. However, it is also important to note that they had substantial exposure overseas while serving as academics and deans of schools.

Between 1990 and 2008, the number of in-service academics and potential academics funded to study abroad was highly dependent on the budget allocation for such programs and the sponsoring arrangement between USM and the central agencies. Increasingly, the Ministry of Education, through its scholarship

division, has played an important role in administering study abroad programs for academics from the late 2000s to the present. Notably, criteria such as the reputation of higher education institutions, country of destination, and the availability of courses in Malaysia, have become important factors in determining study abroad approvals for in-service academics and future academics. In the case of USM, it is important to note that, as training of future academics is a long, drawn-out process that, in many instances, does not result in the expected outcomes, USM is now more likely to recruit academics with PhDs and equivalent professional qualifications from the open market.

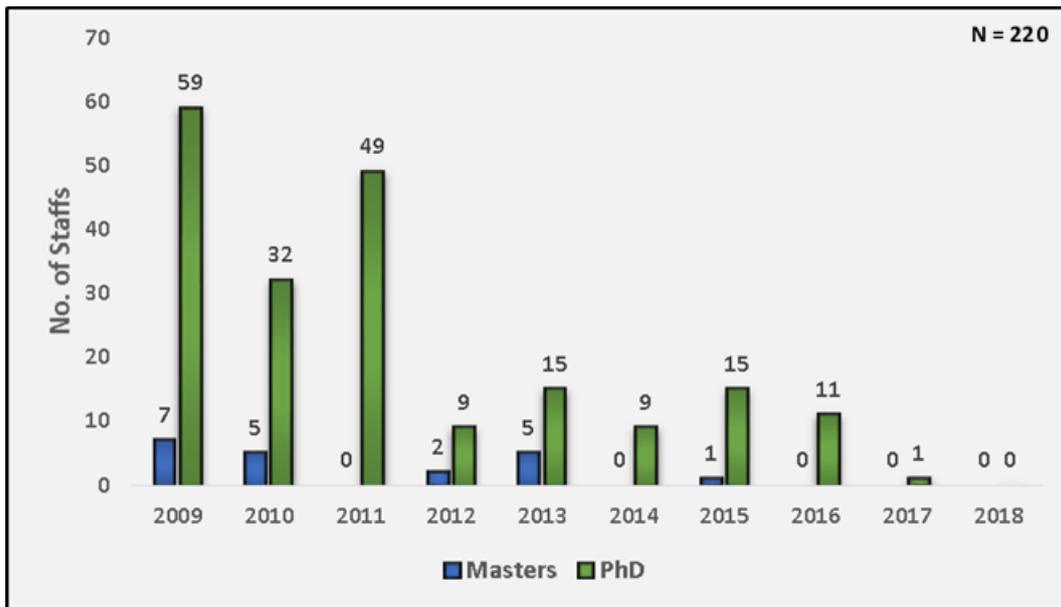
As shown in Figure 2.1, between 2009 and 2018, a total of 221 faculty members were sent abroad to pursue academic qualifications at the master’s and PhD levels. The top 10 destinations accounted for 217 of the 221 studying abroad, or about 98.2%. The numbers that have studied or are still studying in countries such as the UK (132), Australia (36), and the USA (19) accounted for roughly 85% of those sponsored and funded by USM and the central agencies. Destination countries for studying abroad among USM academics are dominantly English-speaking countries. As Figure 2.2 indicates, since 2009, the majority of USM staff or fellows studying abroad have been funded to pursue a PhD. As a research university, USM requires that more than 60% of its academics possess a PhD qualification. From Figure 2.3, USM is highly dependent on the Ministry of Education for funds to send academics abroad for further studies. The overall situation for study abroad among USM academics and fellows has not been very promising since 2017. It is important to note many of Malaysia’s research universities have gained international recognition. Thus, the tendency now is to pursue further studies locally, apart from highly specialized courses in the health and medical fields, which are not available locally.

Figure 2.1. USM – study abroad destinations, 2009–2018



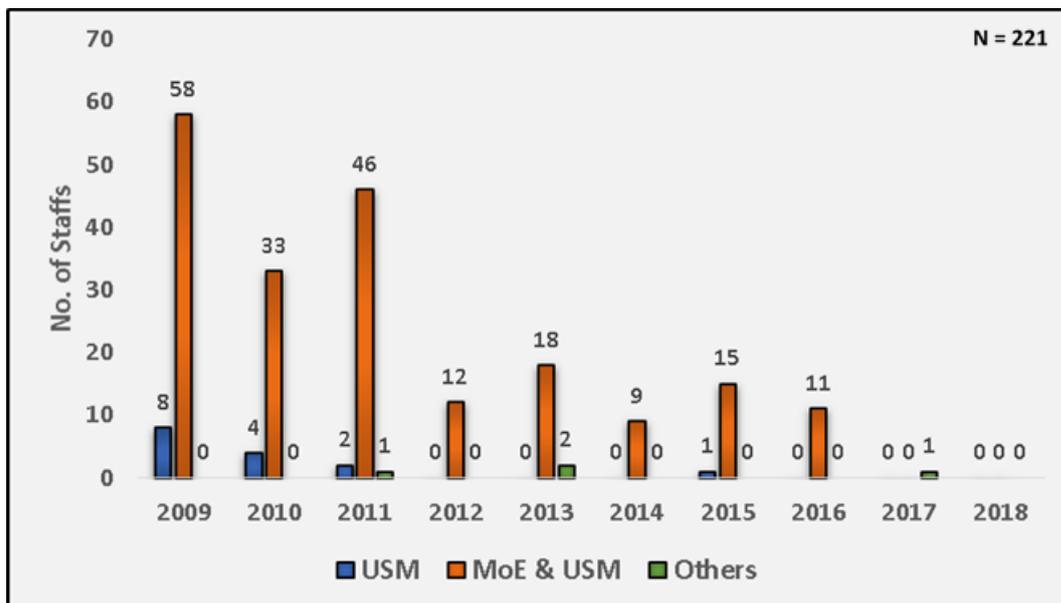
Source: Personal communication with the Human Resource Department, USM

Figure 2.2. USM – study abroad and level of study, 2009–2018



Source: Personal communication with the Human Resource Department, USM

Figure 2.3. USM – study abroad and sources of funding, 2009–2018



Source: Personal communication with the Human Resource Department, USM

2.1.5 International Aid

As a middle-income country moving toward high-income country status, Malaysia does not qualify for substantial international aid or assistance from developed countries. However, there are bilateral collaborative academic and exchange arrangements with developed countries and with international organizations that may benefit USM as a collaborator in specific academic or research projects.

2.1.6 Impact of Studying Abroad

The impacts for USM that result from study abroad in various academic and non-academic spheres have not been systematically recorded and analyzed. Arguably, we could trace USM's transformations over the years in both academic and non-academic matters as a result of the time spent abroad. There is some anecdotal evidence of this from university newsletters and press releases.

2.1.7 Conclusions

Study abroad continues to be a very important component of USM's strategy for internationalization and talent development. In the past, serving academics and fellows were sent overseas for further studies. However, because of financial constraints and the increase in reputable research universities in Malaysia since 2008, many faculty members and staff have been directed to further their studies locally. Increasingly, study abroad opportunities are provided to academics pursuing studies in highly specialized fields that are not available locally, or they may have gained admission to highly reputable universities/laboratories abroad. In some instances, USM may have collaborative arrangements with reputable universities/laboratories overseas, and academics may spend some time in these universities/laboratories to receive specialized training and networking. Arguably, all of these efforts have contributed to the development of USM. Overall, as a public higher education institution, USM academic, and staff planning is highly dependent on the policies of the central agencies at the federal level—in particular, with respect to studying abroad.

2.2 Universiti Teknologi Malaysia (UTM)

2.2.1 Brief History and Background

The UTM official website (Universiti Teknologi Malaysia 2018a) describes UTM's history dating back to 1904, with the opening of a technical school that later became a college, then an institute, before becoming a full-fledged university in the 1970s. Specifically, the history of technical education in Malaysia began in 1904 when a Technical School began its operations on Weld Road (now Jalan Raja Chulan) to teach technical assistants for the Federated Malay States' Departments of Railways, Survey and Public Works. The school was officially known as the Teacher Technical School. Students at this Technical School undertook classes on a part-time basis, working and training according to the technical needs of their employment.

In 1941, the Advisory Committee for Technical Schools recommended that the Technical School at Weld Road be elevated to college status. At the same time, the committee also proposed that a new Technical College be established. The new technical college was to be built on a 47-acre piece of government land in Gurney Road (now Jalan Semarak), Kuala Lumpur. Plans for the construction of the college, however, were put on hold following the outbreak of World War II. During the Japanese occupation of Malaya, the college was known as *Shihan Gakko*, and it operated from its premises at High Street (now Jalan Bandar). Post-independent Malaya saw noteworthy development with regard to technical and professional education.

In 1960, Technical College began a new era when its engineering courses were upgraded to the degree level. Students undertaking courses at the college had the opportunity to sit for professional examinations conducted by the Institution of Civil Engineers and Institution of Mechanical Engineers, United Kingdom, and the Royal Institute of British Architects, as well as the Royal Institute of Chartered Surveyors.

The increase in the subsequent enrolment at Technical College was a direct result of the shift in the government's policy, which placed more emphasis on technology-oriented industries in the fast-emerging Malaysian economy. This represented a shift from agriculture to import substitution, with

many associated infrastructure developments. Following this shift in development priorities, demands for trained human resources in the technical fields rose remarkably. With rapid economic expansion, Technical College became the popular choice for further education, well supported by its many modern and improved teaching facilities and amenities. For instance, for the year 1969 admission, Technical College received an overwhelming 1,300 entry applications at a time when it could only accept about 280 students. The total enrolment of full-time students at the Technical College numbered 872 students in 1969.

In early 1971, the year that saw the initial implementation of the New Economic Policy, a committee was formed by the Ministry of Education to study the feasibility of upgrading Technical College into a university. This proposal must be seen in the context of the spirit and purpose of the New Economic Policy and the nation-building agenda. The committee recommended the formation of a technological university using Bahasa Melayu as the medium of instruction. On March 14, 1972, Malaysia's Supreme Ruler, *Yang Dipertuan Agong*, officially proclaimed the formation of Institut Teknologi Kebangsaan (ITK) under section 6(1) of the University and University College Act 1971. At the time of its establishment, ITK had three main faculties: Engineering, Architecture and Surveying and a Centre for Science and Humanities. Each faculty was led by a Dean, while the Rector chaired the Science and Humanities Centre. The engineering faculty was the largest, consisting of three main departments of civil, mechanical and electrical engineering. The Centre for Science and Humanities hosted three departments: Physics, Chemistry and Mathematics. The Humanities section, however, was separated from the Centre on July 1, 1973. For the 1972/1973 academic year, ITK had 130 administrative staff, 61 academic staff with additional 37 part-time lecturers, and a total enrolment of 1,467 full-time students.

ITK went through tremendous changes, and on April 1, 1975, the Institute reached another milestone in its history when it was officially declared as Universiti Teknologi Malaysia (UTM). The Rector's position was upgraded to a Vice-Chancellor, and the post of Deputy Vice-Chancellor responsible for student affairs was also created, specifically to look after the needs and welfare of the expanding student population. In 1976, the government approved the new University's Constitution, followed by the setting up of the University's Senate and Council.

In line with its changing status, the university began focusing on the establishment and development of its academic faculties. As of the 1975/1976 academic year, the Faculty of Engineering split into three independent faculties of Civil, Mechanical, and Electrical Engineering Faculties. These three engineering faculties—together with the Faculty of Built Environment, the Faculty of Surveying, the Centre for Science Studies, and the Centre for Humanities—became the precursors for most academic programs in UTM today. Since then, several more new faculties have been established: the Centre for Science Studies was upgraded to become the Faculty of Science in June 1981; the Department of Petroleum and Natural Gas of the Faculty of Mechanical Engineering was weaned off to become the Faculty of Chemical and Natural Resources Engineering in March 1983, and the Institute of Computer Science, formerly under the wings of the Faculty of Science, was officially upgraded to faculty status in 1984.

Notably, since its establishment as a full-fledged university in 1972, UTM has played a pivotal role as the nation's largest contributor to the technical and professional workforce for the local industry, government agencies and multinational companies. It is located both in Kuala Lumpur and Johore. Its Kuala Lumpur Campus, known as the UTM Kuala Lumpur Campus, is located in the heart of Kuala Lumpur with close proximity to the city's international enclave and bustling business and economic zone known as the Kuala Lumpur Golden Triangle. Arguably, the UTM Kuala Lumpur Campus is situated as a strategic destination for international staff, researchers, students and visitors. The campus has recently been refurbished to become a world-class facility, including a 17-story administrative building, the Scholar's Inn, and the Malaysia-Japan International Institute of Technology (MJIIIT) building. The UTM main campus in Johore Bahru was established with consideration of both education and geopolitical/regional developments. The UTM Johore Bahru Campus is situated in a strategic and vibrant economic corridor in the south of Peninsular Malaysia, with the city-state of Singapore as its neighbor.

Since becoming a research university in late 2000, UTM has been committed to becoming a graduate-focused university, with more innovative research-based postgraduate programs offered and more attractive and varied modes of PhD programs implemented. This includes PhDs by publication, industry-based doctoral degrees, fast-track PhDs, and double/dual doctoral degrees. This not only provides flexibility in postgraduate study approaches but, at the same time, contributes to increased publications and citations while enhancing technological development and the value-driven economy. Arguably, UTM is the leading innovation-driven entrepreneurial research university in engineering, science and technology, located both in Kuala Lumpur and Johor Bahru, Malaysia. With the establishment of the Educity at Iskandar in Johore, UTM was slated to play a major role in spearheading higher education research and collaboration with the international branch campuses of well-known universities from the UK, such as the University of Reading Malaysia, University of Southampton Malaysia Campus, Newcastle University Medicine Malaysia. Others include the Netherlands Maritime Institute of Technology and Raffles University Iskandar. The latter was started by a higher education provider based in Singapore. Educity at Iskandar Malaysia is a fully integrated education hub recognized as an Entry Point Project (EPP) under the National Key Economic Area (NKEA) of the previous national government. The NKEA was aimed at the economic transformation of Malaysia toward becoming an industrialized nation by 2020.

Through a strategic transformation of its organizational structure, UTM is focused on creating a vibrant knowledge culture and fertile intellectual ecosystem that inspires creativity, innovation and entrepreneurial mindsets. This is also in tandem with the transformation plan of the Ministry of Higher Education that commenced in late 2000 to turn Malaysia into an international educational hub renowned for high-quality educational standards and research excellence in strategic key areas of knowledge and specialized disciplines, as well as multidisciplinary fields.

Since 2006, UTM and the other four Malaysian research universities have shown great success in enrolling and graduating research students. Through MOHE's MyBrain Program, Malaysians were funded to pursue further studies at the PhD level at local universities. The number of PhD students in Malaysia has increased from about 4,000 in 2002 to almost 40,000 in 2012. About half of these students are attached to the research universities. UTM itself has seen an increase from 300 to 4,500 PhD students in the same period and now has more postgraduate students than undergraduates, a trend that is expected to grow to 70% postgraduates by 2020, of which a third will be PhD students. The statistics show that PhD students from 40 foreign countries are currently enrolled at UTM, with Iran, Indonesia, Pakistan, Nigeria and Iraq being the largest contributors. Student exchange collaborations have been established with universities mainly in the UK, but also with Scandinavian universities such as the Technical University of Denmark and Lund University in Sweden. It is not only foreign-student numbers that are increasing at UTM. Nearly 10% of the academic staff are foreigners. Many of these international academic staff were enrolled either full-time with the university or as part of an exchange program during their postgraduate studies and stayed on as academic staff.

As shown in Table 2.4, UTM's development has been impressive, with its expanding student numbers and the internationalization of its student enrolment and staff composition. Evidently, internationalization activities were particularly impressive during the pre-pandemic years. As a research university, UTM is required to increase its enrolment of postgraduate students. Furthermore, as UTM aspires to be listed as a top university in the global university rankings, such as the QS University Rankings, it has to increase the number of international academic staff and students, in addition to the usual output in terms of publications in high impact journals and citations per faculty. Admittedly, as the MOHE is also eager for Malaysian public universities to be listed among the top universities in Asia and the world, it has been easier for UTM to advance its agenda in recruiting international staff and students, and by sending its academic staff to study abroad in order to enhance their academic qualifications and gain international exposure.

Table 2.4: UTM - facts and figures

a) UTM - Facts and Figures, 2018

Students	Number
Students – Undergraduate	
Undergraduate International Students	574
Undergraduate Students	11,833
Students – Graduate/Postgraduate	
Graduate / Postgraduate International Students	2,582
Graduate / Postgraduate Students	4,123
Students – Overall	
International Students	3,156
Students	15,956
Faculty	Number
Visiting International Faculty Staff – Inbound	55
Visiting International Faculty Staff – Outbound	0
International Faculty Staff	265
Faculty Staff	2,297

Source: Adapted from Universiti Teknologi Malaysia (2018b)

b) UTM - Facts and Figures, 2021

Students – Undergraduate and Postgraduate (MyMOHES)	Number
Undergraduate and Postgraduate Students -Total	25,484
Master Students	4,422
PhD Students	4,974
International Students	5,257
Faculty	Number
All Staff	4,858
Academics	1,628

Source: Adapted from Universiti Teknologi Malaysia (2022)

Note: MyMOHES is the MOHE database.

2.2.2 Achievements and Recognition at the International and National Level (non-exhaustive, as of 2018)

As a university striving for excellence, UTM has won several accolades, listed in Table 2.5. More importantly, as a research university, UTM is continuing to work on improving its ranking in the global university ranking systems.

Table 2.5: UTM - Recognition and achievements (not exhaustive)

Four-Time Winner of the National Intellectual Property Award Organization Category 2006, 2009, 2010 and 2012
3-Star ASEAN Energy Management Gold Standard Certification First institution to be awarded 3-Stars by the ASEAN Energy Management Accreditation Scheme (AEMAS)
Higher Education Centre of Excellence (HiCoE) Recognition by Malaysia Ministry of Education

<p>Wireless Communication Centre (WCC) Institute of Noise and Vibration (IKG) Advanced Membrane Technology Research Centre (AMTEC) Institute of Bioproduct Development (IBD)</p>
<p>6 Bionexus Partner (BNP) Status Laboratories Recognition by Malaysian Biotechnology Corporation (BiotechCorp)</p>
<p>NanoMalaysia Centre of Excellence Recognition by Malaysia Ministry of Science, Technology and Innovation (MOSTI)</p>
<p>Research University Status 6-star rating in the Malaysia Research Assessment Instrument (MyRA) 2014, 2020</p>
<p>Autonomous University First public university to be announced as an autonomous university by the Malaysia Ministry of Higher Education</p>
<p>Self-Accreditation Status Conferred the self-accreditation status by the Malaysia Ministry of Higher Education, in recognition of the university's excellent internal quality assurance mechanisms</p>
<p>Times Higher Education Global Impact Ranking (SDG) 101-200 in 2019; 201-300 in 2020; 101-200 in 2021; 201-300 in 2022</p>
<p>Quacquarelli Symonds (QS) World University Rankings Ranked 228 in the world; 187 in 2020; 191 in 2021; 203 in 2022 Ranked 18 in the "Top 50 Under 50", ranked 13 in 2020 Ranked 46 in Asia in 2019; 47 in 2020; 39 in 2021; 38 in 2022 Asia Top 10 Young Universities Rated 5 Stars Overall Rating for QS Star Rating in 2021</p>
<p>2015 Center for Science and Technology Studies (CWTS) Leiden Ranking Ranked 1st in Malaysia in the Science Research Impact Ranked 1st in Malaysia in the Physical Sciences and Engineering Research Impact</p>
<p>2016 Academic Ranking of World Universities Top 100 in Civil Engineering under Shanghai Ranking</p>
<p>2017 Times Higher Education World University Ranking (Asia) Highest joint rank in Malaysia at 121 – 130</p>
<p>2017/2018 QS World University Rankings by Faculty / Subject Ranked 53 in the Faculty of Engineering & Technology 5 Subjects Ranked 51-100 Architecture / Built Environment Chemical Engineering Electrical & Electronics Engineering Civil & Structural Engineering Mechanical Engineering</p>
<p>2017 University Ranking by Academic Performance (by Field) 4 Subjects Ranked Top 100 Environmental Engineering Chemical Engineering Mechanical Engineering Civil Engineering</p>
<p>2017 US News Best Global Universities Ranked 85 in the Engineering Category</p>
<p>2017 Shanghai Ranking's Global Ranking of Academic Subjects 2 Subjects Ranked 51-75 Chemical Engineering Water Resources</p>
<p>2017 National Taiwan University (NTU) Ranking by Subjects 2 Subjects Ranked Chemical Engineering Civil Engineering</p>

Ranking Web of Universities
Ranked 2nd in Malaysia in the Webometrics Ranking of World Universities in July 2018,
531 in the world in 2020

Source: Universiti Teknologi Malaysia (2018c)

Note: Updates for some items for 2020. Full list for 2020 is available at <https://corporateaffairs.utm.my/corporatepublication/wp-content/uploads/sites/9/2022/06/ANNUAL-REPORT-2020.pdf>

2.2.3 UTM's Policies of International Academic and Professional Program for Students and Staff

UTM's policies on internationalization and study abroad for academic staff, as with all public universities in Malaysia, must be aligned with the Ministry's policies. However, even though MOHE policies are in place, each university has been given some degree of autonomy for innovation and creativity in this area. Consequently, as a research university with some degree of autonomy, UTM has developed appropriate policies for its academic and research programs, including staff and student mobility for both short and longer-term programs. For reasons highlighted earlier, UTM has been very active in recruiting international teaching staff. But more importantly, UTM has been focusing on training its academic staff to promote international exposure through study abroad, particularly in the field of engineering and its various disciplinary branches. In addition, there are policies on continuous professional and career development for its academic staff. UTM has also been very active in facilitating study abroad programs on a short-term basis for its students, primarily for regional and intercultural competencies.

(i) Policy for Enhancing Transnational Academic Program and Experience

In line with MOHE's aspiration to internationalize Malaysian higher education and institutions, UTM has strongly encouraged the Faculty/School/Academy to implement transnational education programs to make UTM comparable with other top universities. With the Malaysian Qualifications Agency (MQA)'s clear guidelines on how such degrees need to be designed and implemented, UTM has subsequently encouraged and supported the various initiatives from the faculty to create double, dual and joint degree programs at the postgraduate level with both local and foreign universities. The university's policy, reflecting MOHE and MQA requirements, aims to establish guidelines for the development, implementation and management of double degree, dual degree and joint degree programs at UTM. Arguably, the implementation of the programs gives advantages to students in terms of recognition as well as increasing the quality of graduate programs in UTM (Universiti Teknologi Malaysia 2017a).

Double Degree Program The Double Degree Program is a program that combines two programs from two different fields of study involving two universities, either within or outside of Malaysia. This program could also be offered at UTM by involving two different faculties. Students receive two separate degrees after completing all the requirements of the award of the degree from the universities involved.

Dual Degree The Dual Degree Program refers to a combination of two programs of study from the same or nearly the same fields that involve two different universities, either within or outside of Malaysia. Students will receive two separate degrees from the collaborating university after successfully

fulfilling all the requirements of the award of the degree from the universities involved.

Joint Degree

The Joint Degree Program refers to a collaborative program conducted between UTM and a university inside or outside of Malaysia, leading to a joint award of a degree duly signed by the universities involved.

(ii) UTM Outbound Mobility Program

UTM is currently offering five types of mobility programs that allow UTM students to go abroad and participate in academic programs in universities, institutions, or organizations worldwide (Universiti Teknologi Malaysia 2018d). The opportunities offered are as follows:

(a) Study Abroad/Student Exchange

Study Abroad/ Student Exchange program is a program that will allow students to spend one or two semesters at universities abroad and take courses in a regular semester with credit transfer opportunities. Students are encouraged to study with one of the university's global partners.

Most students who choose to undertake a Student Exchange program will do so on an exchange-basis—namely, students study overseas at one of UTM's partner universities for one or two semesters. However, there is also the option of undertaking a Study Abroad-basis, meaning students study overseas at a non-partner university of their choice. Additional differences between the two options can be explained as follows:

- *Student Exchange Program*

Study overseas at one of UTM's many partner universities that offer students a tuition fee waiver (subject to quotas).

- *Study Abroad Program*

A Study Abroad Program is a program in which students study overseas at a (non-partner) university of their choice but need to pay tuition fees to the host university. Intending students are required to apply to the host university with the assistance of UTM International and will continue to pay tuition fees to UTM. Units taken at the host university are credited back toward students' undergraduate or postgraduate degrees at UTM.

(b) Research Internship Abroad

A Research Internship is a program that allows students to go abroad for a joint research study or internship under the supervision of academic staff at institutions or industries abroad.

(c) Global Outreach Program

Participating in the UTM Global Outreach Program is an exciting and challenging way of broadening students' personal, academic and professional horizons. Through the program, students can achieve the following:

- Globalize their educational experience by adding an international dimension to their degree;
- Enhance academic opportunities beyond those offered at UTM;

- Establish professional and career opportunities by networking with other students, academics and professional organizations;
- Improve language skills, cross-cultural understanding, and cross-cultural and interpersonal communication;
- Experience personal growth by developing self-confidence, independence, and social skills; and
- Incorporate these new experiences into their resumé so that they can stand out from the crowd in an ever increasingly global workforce.

In this program, students spend 7–14 days gaining new academic knowledge, cultural and international experience. The minimum length is 7 days, including days of departure and return. The total academic portion of the program must be not less than 3 days.

(d) International Invitation Program (IIP)

IIP is a program that allows students to participate in a program offered by an institution/organization/society with the following themes:

- Academic Program: Seminar, conference, paper presentation, student project competition
- Cultural: Cultural exhibition and conference, historical and cultural tour
- Student Development Activity: Courses, workshops

(e) Summer School Abroad

Summer school abroad is a program designed to provide educational opportunities over 4 to 8 weeks during the summer holidays abroad. It is related to the environment, local community, heritage and traditions.

(iii) Professional Training and Development Policy of Academic Staff

This policy aims to enable university academic staff to have the opportunity to attend professional training activities to maximize their careers in fulfilling the vision and mission of the university. This policy provides guidance to academic administrators when considering an application by academic staff to attend such training programs.

There are three types of training programs based on the duration of the program, namely long-term, medium, and short training. This policy is fundamental to UTM's Continuous Development program (CPD) (Universiti Teknologi Malaysia 2017b). Training activities are based on the needs and careers of academic staff inside or outside the country.

The Academic Training Fund is one of the financial resources used to send lecturers to take training internally or abroad for the professional development of UTM academic staff. In addition, the Young Academic Training Scheme (SLAM) was created as one of the earlier approaches to establish a pool of PhD-qualified academic staff. Through this scheme, the university will identify qualified candidates to be offered SLAM to pursue master's or PhD degrees at local and overseas universities under the sponsorship of the Bumiputra Academic Training Scheme (SLAB) or Institute of Public Higher Education Academic Training Scheme (SLAI) Ministry of Education Malaysia (MOE).

As Table 2.6 demonstrates, since 2011, there has been a tendency for UTM academic staff to pursue their studies at the PhD level or undergo training at the post-doctoral level in Malaysia. Evidently, it is no longer a policy of UTM or any other public university to send potential future academics abroad at the master's degree level. Of the 244 academics sent for further studies and post-doctoral training between 2011 and 2018, 55% did not go abroad. Of the 110 that study abroad, the UK continues to be the main destination (with about 45%), followed by Japan (11%), Australia (10%), the US (8.2%) and the Netherlands (7.2%). The UK is also a major destination for academic staff or those who have recently

graduated with a PhD to pursue their post-doctoral training. Notably, 21 out of 41 (or 29%) undertook their post-doctoral training in Malaysia, which is indeed very significant and a recognition of local universities' capacity in developing the skills and competencies of future Malaysian academics—particularly those in the science and technology fields. Prior to this, post-doctoral trainings are usually undertaken overseas in major laboratories of well-known universities in the UK and Australia.

Table 2.6: UTM - Number of SLAB/SLAI/POST-DOC sponsored by the Ministry of Higher Education (MOHE) from the years 2011–2018 by country and level of study

Country	Masters	PhD	Post-Doctoral	Total
United States		3	6	9
Australia		9	2	11
Denmark		1	2	3
Hong Kong		1		1
Ireland		1		1
Japan		9	3	12
Canada		3		3
Korea		3		3
Malaysia	2	120	12	134
Netherlands		7	1	8
New Zealand		1		1
Norway		2		2
France		3		3
Germany		1		1
Singapore			1	1
Switzerland			1	1
United Kingdom		37	13	50
Total	2	201	41	244

Source: Personal communication with UTM

As Table 2.7 indicates, as UTM is a technology-based university, it is to be expected that its academic staff have pursued PhDs in areas related to engineering and its sub-fields. In fact, engineering and engineering-related fields accounted for no less than 70.0% of all fields given priority between 2011 and 2018. As no less than 60% of UTM academic staff studied for their PhDs in Malaysia, it could be assumed that a large majority of this PhD work was undertaken in Malaysian universities. At the post-doctoral internship level, once again, engineering and related fields are obviously given priority, followed by science and education. The details of UTM's pre- and in-service study abroad outcomes are listed in Appendix 2.

Table 2.7: UTM - Number of SLAB/SLAI/POST-DOC sponsored by Ministry of Higher Education (MOHE) from year 2011 - 2018 by engineering-related subjects and level of studies

Engineering-related subjects	Masters	PhD	Post-Doctoral	Total
Civil Engineering		1		1
Engineering	1	32	9	42
Civil Engineering		7	3	10
Civil Engineering - Urban and Regional		1		1
Engineering Biochemistry		1		1
Biomedical Engineering		3		3

Bioprocess Engineering		1		1
Electric Engineering		12	1	13
Electric & Electronic Engineering		1		1
Electric Engineering (Power)		1		1
Electronic Engineering		1		1
Gas Engineering		2	1	3
Geomatic Engineering		1		1
Chemical Engineering			5	5
Mechanical Engineering		17		17
Mechanical Engineering (Thermofluids)		1		1
Nuclear Engineering		4		4
Software Engineering			1	1
Medical Engineering		9		9
Petroleum Engineering		11	1	12
Structural Engineering		1		1

Source: Personal communication with UTM

It is important to note the initiative taken by the Malaysian Government to promote and advance studies and research related to technology in Malaysia, which has benefitted UTM. The Malaysian Global Science and Innovation Advisory Council (GSIAC) was set up in 2011 as a sounding board to improve and optimize Malaysia's capabilities in the field of Science & Innovation. GSIAC is chaired by the Honorable Prime Minister of Malaysia and its council members are composed of selected Malaysian ministers, national and global corporate leaders, Nobel laureates, eminent global academics, as well as researchers. GSIAC has made it possible for Malaysian research universities to arrange internships and placements in several laboratories in well-known universities in the US. Consequently, the US continues to be an important destination for post-doctoral training, after the UK and Malaysia. Incidentally, UTM is one of the Malaysian research universities that has taken advantage of the opportunity presented by GSIAC. On the advice of Malaysia's GSIAC, in 2013, the prime minister created the specialized Malaysia Institute for Innovative Nanotechnology, or NanoMITE, which is based at UTM. NanoMITE's mission is to engage in global scientific research collaborations to generate ideas, knowledge and products to benefit society while contributing to the national economy.

At this juncture, it is also important to highlight the benefits accrued by UTM from the establishment of the Malaysia-Japan International Institute of Technology (MJIIT), which operates from the UTM Kuala Lumpur Campus. While this is not in any way connected directly to GISAC, it is an excellent case of collaborative efforts between Japan and Malaysia to advance technological progress in Malaysia and the ASEAN region through exchanges and mobility of students and staff. MJIIT's mission is to, first, provide Japanese-style engineering education blended with the Malaysian distinctiveness for sustainable industry and society; and second, to lead in academic and research excellence in Electronics, Precision, Environmental & Green Engineering and Management of Technology (Malaysia-Japan International Institute of Technology 2018).

(iv) Academic Leadership and Professional Development Unit (ALPDU)

Professionalism and advancement of leadership skills are engineered by the Academic Leadership and Professional Development Unit (ALPDU). ALPDU is a combination of Academic Leadership and Competency Development and Professional Development, which aims to refine the academics' career paths and leadership proficiency (Universiti Teknologi Malaysia 2017c).

(v) Professional Qualification Unit (UTM Pro-Q)

The UTM_Pro-Q was established in June 2011 under the purview of the Deputy Vice-Chancellor (Academics and International) to facilitate UTM's academic staff in improving their credentials and professional attainments, as well as to fulfill accreditation requirements for UTM's academic programs (Universiti Teknologi Malaysia 2013).

UTM_Pro-Q Initiatives:

- (a) Development of the Database for Profiling and Professional Registration Projection of Academic Staff
- (b) Development of online tools for Professional Qualification Career Path
- (c) Development of a structured Industrial Training Program.

2.2.4 Conclusions

UTM, a technology-based research university, is poised to drive teaching, learning, research and community engagement in the Malaysian higher education landscape. This positive development can be attributed to the exposure of its academic staff and students to global and regional changes, specifically in the engineering and related fields. Of late, however, there is a tendency for its academic staff to pursue higher qualifications at home in Malaysia. Arguably, this is a government policy that UTM and all public universities need to consider when sending their academic staff for further studies. The quality of local universities, in particular research universities, has significantly improved since the late 2000, and they now offer world-class engineering and engineering-related programs. In view of this, the government saw no reason to continue to send academic staff for further studies overseas. However, UTM has taken appropriate measures by introducing various programs in order to provide their academic staff and students with international exposure that would be very useful for UTM in the emerging global and national scenario.

2.3 Universiti Malaya (UM)

2.3.1 Overview of the Development of UM

UM was the first university established in 1949 by the British in Singapore through the merger of the King Edward VII College of Medicine and Raffles College. The King Edward VII College of Medicine was set up in 1905 with the aim of developing medical assistants and providing the first two years of a five-year medical program for training doctors (Khoo 2005). Raffles College, conversely, was intended to be a college for Malay and Chinese Studies, but when it was eventually established in 1929, the college became a pre-university preparatory center that awarded diplomas, and its students could pursue university education through London External Degrees. Several years later, Raffles College also introduced teacher training courses.

In 1938, the Secretary of State for the Colonies commissioned Sir William McLean and a group of experts to survey the existing arrangements for higher education. The McLean Commission recommended establishing a university college by putting the two colleges within the same institution. However, before the recommendations could be implemented, the Second World War broke out. Another commission led by Sir Alexander Carr-Saunders was then set up in 1947 to revisit the earlier recommendation. Instead, the Carr-Saunders Commission recommended that the two colleges be merged into a full-fledged university and UM was established in Singapore in 1949. This marked the beginning of university education in Malaya.

Just prior to the independence of Malaya, there was a proposal to set up an autonomous campus of UM in Kuala Lumpur. Soon after Malaya gained independence in 1957, initiatives were taken to turn the two autonomous campuses of UM into separate universities. By 1961, the campus in Singapore became the

University of Singapore, which was later merged with Nanyang University to form the current National University of Singapore, while the campus in Kuala Lumpur became UM.

Since its inception, UM has been established using the British model of the university. Typically, the governing structure of the university is comprised of authorities including the Court, Council, Senate, Faculties, the Guild of Graduates and several Boards. The Court was a representation of the diverse interest groups in society, while the Council was the highest governing body, made up of representatives from the Court, Senate and Guild of Graduates. The Senate was the highest decision-making body for academic matters and was chaired by the Vice-Chancellor, who is the chief executive officer. From 1961 until 1971, UM was self-governing, with the abovementioned structure based on its constitution, but at the same time, it received more than 80% of its expenses from the government. With the enactment of the Universities and University Colleges Act in 1971, along with the amendment made to the act in 1975, the self-governing capabilities of UM were dismantled considerably, with the Vice-Chancellor and Deputies appointed by the King on the advice of the Minister of Education instead of the University Council.

The introduction of the New Economic Policy in 1971, an affirmative action to restructure society and reduce inequalities across ethnic groups, also saw the removal of UM's autonomy in choosing its students. Admission into universities was centralized at the MOE to ensure that an ethnic quota of 55:45 of *Bumiputera* and non-*Bumiputera* was implemented, not only across the student population but also in every academic program of public universities. The ethnic composition of students changed drastically. In 1970, just before the introduction of the affirmative policy, Chinese made up 49.2% of students, *Bumiputera* 39.7%, with Indian and Others comprising 11.1%. By 1985, *Bumiputera* comprised 63% of the students, Chinese 29.7%, and Indians and Others 7.3% (Sato 2007). The ethnic quota, which reflects the ethnic composition, remained a distinctive feature of public universities in Malaysia until it was abolished in 2002.

Apart from the introduction of affirmation action, the early 1970s has also seen the implementation of the National Language Policy. In line with the Government's initiative on the usage of Malay as the national language since the 1960s—and with the unanimous decision of the Council and Senate—all official ceremonies and functions including the convocation ceremony and pledge by new students have been conducted in Malay since May 1970 (Ungku Aziz 1970). However, the use of Malay in teaching and learning was scheduled to be introduced gradually between 1970 and 1975, and various support services, such as Malay classes, were provided for academics and students in managing the switch from English to Malay.

The 1970s saw a drastic change in terms of language and the demographics of students, alongside increased student activism in the early to mid-1970s until the introduction of UUC Act, which asserted increased control. The 1980s was a period of further expansion. Not only has the number of students continued to increase, but the number of academic programs has also followed suit. Among the notable programs added in this decade include the Academy of Islamic Studies (in 1981), the Master of Business Administration (in 1982), the Special Preparatory Japanese Program (in 1982), the Academy of Malay Studies (in 1990) and the Bachelor of Computer Science (in 1990). The expansion continued in the 1990s with new programs in pharmacy and accountancy, while new faculties and departments were also set up in this period. The beginning of academic year 1996/1997 also witnessed a change from the term system—used in most British universities—to the semester system.

On January 1, 1998, UM was corporatized. However, unlike the form of corporatization where the university detaches itself from the public service to become a corporation, the corporatization mainly occurred in the form of governance (Lee 2004). This corporatization exercise was a corporatization-in-governance because other aspects of corporatization, such as de-linking academics from the public service and increases in wages, did not materialize. However, the tuition fees at UM increased and have remained higher than other public universities ever since. Corporatization brought about the restructuring of the governance of the university, where the Council, as the highest governing body, was replaced with a Board of Directors. More detrimental in the corporatization exercise was the significant

downsizing of the Senate, from more than 300 professors and deans to only 20 professors alongside the deans, who were all appointed by the Vice-Chancellor. It was also during this time that UM was, for the first time led by a Vice-Chancellor who was not an academic, but a former civil servant turned into a corporate figure. The Vice-Chancellor held the highest administrative office of the university between 1994 and 2000.

Another spin-off from the corporatization exercise was the establishment of the UM Centre for Continuing Education in 1998 to offer various educational and training programs for all levels of society in line with the concept of lifelong education. The programs include diplomas, executive diplomas, certificates and short courses, catering predominantly to working adults on a part-time basis. This center continued to operate from the City Campus in the middle of Kuala Lumpur. It is important to note that this center has to recover costs as part of its overall strategy.

In 2007, UM was recognized by the MOHE as one of the research universities in Malaysia. In 2008, UM and USM were shortlisted for the MOHE Accelerated Programme for Excellence (APEX) status. APEX University status was finally awarded to USM later that year. The failure in the APEX exercise motivated UM to focus on other core initiatives related to the research university/world-class university agenda. In the context of the arguments that public universities need to excel, there must be both procedural and substantive autonomy. Hence, UM and USM were the two public universities desiring increased autonomy but for different reasons. UM argued that this autonomy was important to propel it toward global excellence without depending too much on government resources. USM, on the other hand, wanted wider autonomy to unlock opportunities presented by its APEX status to achieve not tangible returns to society. The government was receptive to these arguments and so an audit exercise was undertaken to determine public universities' readiness to receive autonomy. Subsequently, UM became one of the four public universities to be awarded autonomous status in 2012.

Also in 2012, UM and the University of Wales jointly established a private university in Kuala Lumpur. The International University of Malaya-Wales (IUMW) is a comprehensive university that offers programs at the undergraduate and postgraduate levels. This is indeed a pilot initiative for a public university such as UM to generate income from academic capitalism. It is also an attempt to capitalize on the government's aspirations of turning Malaysia into an international hub for education excellence. It is expected that the University of Malaya-Wales (IUMW), as a private entity, could attract a substantial number of international students, thus contributing directly to the income-generating capacity of UM and indirectly to the national economy. It was estimated at that time that each international student would spend no less than MYR46,000 per year.

As a university striving for excellence, world-class status, and one that has been selected by MOHE to pursue global university rankings, UM has, in recent decades, achieved and won several accolades (see Table 2.8).

Table 2.8: UM - Recognition and achievements of University of Malaya (not exhaustive)

<p><i>Research University Status</i> 6-star rating in the Malaysia Research Assessment Instrument (MyRA) 2014 star rating awards</p>
<p><i>Autonomy Status</i> One of the first four public universities to be awarded autonomy status by the Malaysia Ministry of Higher Education in 2014 based on the Code of Good Governance Index</p>
<p><i>Self-Accreditation Status</i> Conferred self-accreditation status by the Malaysia Ministry of Higher Education in recognition of the university's excellent internal quality assurance mechanisms</p>

<p><i>Higher Education Centre of Excellence (HICoE)</i> Recognition by Malaysia Ministry of Education UM Power Energy Dedicated Advanced Centre (UMPEDAC) Photonics Research Centre (PRC) Institute of Ocean and Earth Sciences (IOES)</p>
<p><i>Quacquarelli Symonds (QS) World University Rankings</i> Ranked 87 in the world Ranked 24 in Asia, ranked 9 in 2021. Ranked 161-170 Graduate Employability Ranking</p>
<p><i>2018 QS World University Rankings by Faculty / Subject</i> Ranked 22 in the Engineering and Technology Category Ranked 24 in Library and Information Management Ranked 30 in Electrical and Electronic Engineering Ranked 30 in Development Studies Ranked 41 in Mechanical, Aeronautical and Manufacturing Engineering Ranked 42 in Chemical Engineering Ranked 46 in Civil and Structural Engineering Ranked 47 in Mineral and Mining</p>
<p><i>2018 Times Higher Education Emerging Economies University Rankings</i> Ranked 27 in the world</p>
<p><i>2016 Academic Ranking of World Universities</i> Top 401-500 in the world</p>
<p><i>2018 US News Best Global Universities</i> Ranked 1 in Malaysia Ranked 36 in Asia 266th for 2018 to 205th for 2021 in the world Ranked 10 for Engineering Category Ranked 88 for Computer Science Category</p>
<p><i>Ranking Web of Universities</i> Ranked 1st in the Webometrics Ranking of World Universities, Malaysia in July 2018</p>

Note: A full list of the latest recognition and achievements is available at <https://www.um.edu.my/annual-report>

2.3.2 UM Development Policies and Strategies

Apart from the National Language Policy of the 1960s, another major policy that took place during the same period at UM was “Malayanization” (Khoo, 2005). This policy was designed to gradually replace international faculty members with Malaysians. This included appointing the first Malaysian Vice-Chancellor, Royal Professor Ungku Aziz. The Malayanization Policy could therefore be considered a major early step in the subsequent policy of sending faculty members abroad for postgraduate studies to equip them with the knowledge, skills and qualifications needed to teach and conduct research in UM. The next section will elaborate on the policy of sending faculty members abroad. However, it must be noted at the outset that, before the establishment of the MOHE in 2005, all public universities were allocated resources to fund their academic staff for further studies/training abroad. When MOHE took over this function and resources were centralized at the ministry level, all public universities had to subscribe to MOHE’s directives and criteria.

In the 1980s, one of Malaysia’s key development policies was the “Look East Policy.” The then Prime Minister initiated this policy for Malaysia to emulate the model of development undertaken by the Japanese after the Second World War. While this policy was mainly an economic development model, UM has had an indirect but significant role in this. Under the Look East Policy, the Government began to send its state-sponsored students to Japan. To prepare them in terms of language and cultural adaptation, the Special Preparatory Program to Japan was set up in the Centre for Foundation Studies in

Science. The area in which the program was housed was known as *Ambangan Asuhan Jepun*, or “A Gateway to Japan.”

In 2004, when the THE World University Rankings were announced for the first time, UM was ranked 87th. However, in the following years, the position of UM slipped. The university fell out of the top 200 and subsequently went further downhill. In response to the situation, a key development program of UM was the High Impact Research (HIR) Program. This program was funded by the MOHE to inject additional research funding with the goal of pushing UM into the top 100 universities by 2015. A total of MYR590 million has been spent on this program through the disbursement of grants that will result in publication of manuscripts in Tier 1 International Scientific Indexing/Web of Science journals, as well as enhancing research capabilities and expertise with collaborators from the Ivy-league universities (University of Malaya 2018). Notably, under the HIR Program, an advisory council was set up to advise UM in terms of its research priority areas and to initiate joint research between council members and the university. The advisory council comprised four Nobel laureates: two from the United States and one each from Japan and Australia, and two distinguished fellows from the United States and Taiwan, respectively.

Table 2.9: UM – Nationalities of international faculty members by region, 2015

Country	Number
<i>Africa:</i> Algeria, Egypt, Ivory Coast, Libya, Morocco, Nigeria, Sudan, Tunisia	15
<i>Middle East:</i> Iran, Iraq, Jordan, Syria, Yemen	72
<i>Europe:</i> Belgium, Bulgaria, France, Germany, Italy, Netherlands, Russia, Sweden, United Kingdom	30
<i>Central Asia:</i> Kyrgyzstan	1
<i>South Asia:</i> Bangladesh, India, Pakistan, Sri Lanka	95
<i>Southeast Asia:</i> Indonesia, Myanmar, Philippines, Singapore, Thailand, Vietnam	37
<i>East Asia:</i> China, Japan, South Korea, Taiwan	55
<i>Oceania & Pacific:</i> Australia, New Zealand	4
<i>North America:</i> Canada, United States of America	9
<i>Latin America:</i> Brazil, Colombia, Ecuador, Guatemala	4
Total	322

Source: Personal communication with Department of Human Resources, UM

It is important to note that, under the HIR Program, one of the strategies to enhance the position of UM in the global university rankings is to increase the number of international faculty members or research personnel, such as post-doctoral fellows and research fellows. For this program to be successful, beginning in 2012, the MOHE allocated the required financial resources to UM, with payments made in stages based on progress reports. At the height of this program in 2015, UM had the highest number of international faculty, generally nationals of countries in the Middle East and South Asia (see Table 2.9). These are the type of international academics that were referred to by Wan and Morshidi (2018) as Type 2b—international faculty members recruited but relatively junior in the hierarchy of the institution with the expectation that they will contribute toward the research and publications for the rankings race.

Out of 322 international faculty members, 47% held the position of research fellow, lecturer or senior lecturer (equivalent to Assistant Professor in the American-based academic hierarchy system) (see Table 2.10). In other words, these faculty members are expected to be highly “productive” in publishing articles in ISI/Scopus journals for UM to strive for a higher position in the global university rankings. At the same time, their presence was also expected to increase the international profile of the university through the presence of more international faculty members. The initiative to increase the number of international faculty members has implications for the talent development of the university, which will be elaborated on in the next section. As of July 2022, with the pandemic, the number of international academics has dipped to 256 from 322 in 2015 (University of Malaya 2022).

Table 2.10: UM - Academic position of international faculty members, 2015

Academic Position	Number
Post-doctoral Fellow / Visiting Lecturer	32
Language Teacher	46
Lecturer	11
Senior Lecturer (Research Fellow)	140
Associate Professor (Senior Research Fellow)	61
Professor (Principal Research Fellow)	32
Total	322

Source: Personal communication with Department of Human Resources, UM

The policy to hire a significant number of international faculty members can be seen as an effort of the university toward internationalization-at-home. While it has become expensive to send local faculty members to study abroad and to translate their experiences into the teaching of students in the university, nevertheless, by having these international faculty members engaging in teaching and conducting research, such a policy potentially played a part in the inculcation of international elements into the curriculum. Elements such as intercultural competencies can be developed in the students through the presence of international faculty members as well as by sending the faculty members to study abroad.

In addition to having international faculty members in the university, UM has also signed more than a thousand Memorandums of Understanding and Memorandums of Agreement with 827 universities across 62 countries. The notable countries with many universities that have formalized their relationships with the UM include Australia, China (including Hong Kong), Indonesia, Japan, Pakistan, South Korea, Taiwan, Thailand and the United Kingdom.

A significant proportion of these memorandums were signed specifically with the International Student Centre of UM for the purpose of facilitating and promoting exchange programs for students. The exchange programs are designated to internationalize the learning experience of its students. These initiatives can be seen as additional efforts to introduce international elements into the curriculum and learning experiences. Through exchange programs, be they short or long term, as well as credit- or non-credit, such learning activities are effective in developing intercultural competencies and other related skills in the students.

UM offers four types of inbound exchange programs for international students. These programs include long-term exchange programs of one or two semesters, short-term exchange programs of less than one semester, internships or non-graduating research programs, as well as the UM Summer Program.

Conversely, students from UM have the opportunity to participate in outbound exchange programs through three different mechanisms. These programs include a one-semester exchange program, short-term exchange programs of less than one semester, as well as the scholarships exchange program. Based on the International Student Centre website, there are currently three one-semester exchange programs for students of UM, namely:

- University of Zurich in Switzerland
- Shinshu University in Japan
- Hosei University in Japan.

The only scholarship exchange program listed on the website is the Japanese Language Program for international students seeking to go to Meiji University in Japan for the study period of winter 2019.

Previously, students could undertake scholarship exchange programs at the following institutions:

- Burapha University (Thailand)

- Gadjah Mada University (Indonesia)
- Australia (ASEAN Scholarship)
- China (China-AUN Scholarship)
- Taiwan (Taiwan Scholarship)
- Canada (Canada-ASEAN Scholarship)

In addition, there was also a scholarship dedicated to promoting outbound exchanges for students of UM awarded by a private corporation. In the listing of previous opportunities for outbound one-semester exchange programs as well as short-term exchange programs, the opportunities advertised primarily covered universities in Asia, with some in Europe (see Appendix 3 for a detailed listing).

To support and encourage students to go abroad for exchange programs, UM provides financial support for each student up to a ceiling cost of MYR4,000. This includes 60% of the return airfare, a living allowance of MYR15 per day, and an accommodation allowance of MYR15 per day. Although this financial support comprises only part of the costs incurred in the exchange program, it nonetheless reduces a major part of the financial burden on students who are keen to enrich their learning experience by going abroad. Furthermore, to qualify for application for the exchange program, the university has stipulated additional criteria, such as the student needs to have a good command of the English language and have a grade point average of 3.00 or higher (out of 4.0).

As a way to further facilitate the exchange of international students, as well as recruiting students to study at UM, the university has set up four offshore offices in Beijing, China, as well as Lahore, Karachi and Islamabad, Pakistan.

2.3.3 Study Abroad of Faculty Members

UM has a long history of sending its faculty members to study abroad, particularly for postgraduate degrees between the 1960s and the early 2000s. As the premier university in Malaya (and subsequently Malaysia after 1963), UM saw fit to send academic staff for training at other universities of reputation abroad. Other local public universities were only starting to get traction in terms of quality and reputation.

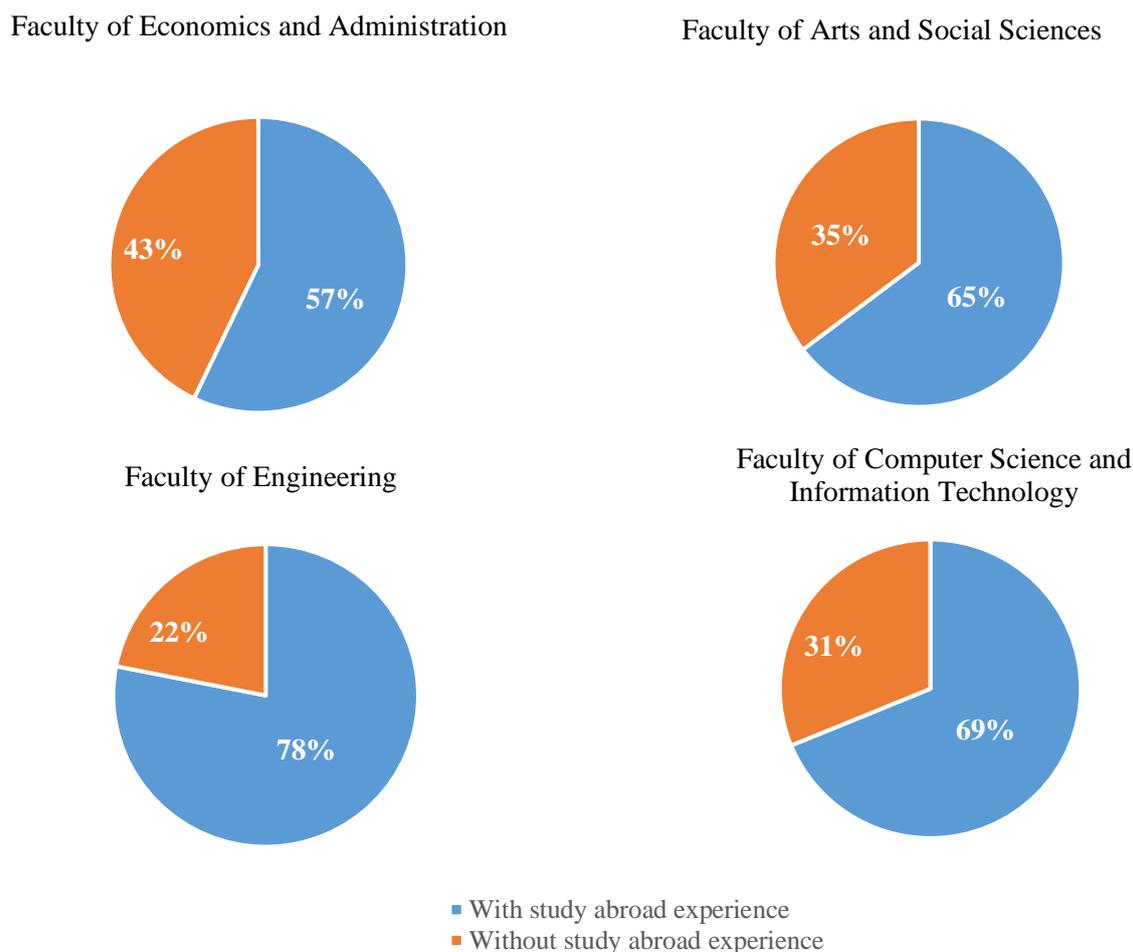
Potential candidates were recruited among undergraduate students and offered positions as tutors. Subsequently, these tutors were sent with scholarships to pursue master's and/or doctorates with the financial support of the MOHE under the 'Skim Latihan Akademik Bumiputera' (Bumiputera Academic Training Scheme) and 'Skim Latihan Akademik IPTA' (Public Universities Academic Training Scheme). The initiative of sending faculty members to study abroad has continued alongside the national policy undertaken by the PSD and the MOHE. The availability of opportunities has been subjected to many factors, including the economic situation of Malaysia.

From a sample of selected faculties, the percentage of faculty members who have the experience of studying abroad is 57% in the Faculty of Economics and Administration (see Figure 2.4). In the Faculty of Arts and Social Sciences, the percentage is slightly higher at 65%, while in the Faculty of Engineering and Faculty of Computer Sciences and Information Technology, the percentages of those who have gone abroad for at least one of their higher education qualifications are 78% and 69%, respectively. Arguably, until the late 1990s, local universities did not have the capacity and expertise to train local academic staff in Computer Science, particularly in sub-fields related to software engineering. Thus, many potential academics and serving academics were sent abroad to pursue higher qualifications in a range of technical fields.

Apart from postgraduate degrees, faculty members have also been sent abroad for subspecialist training (especially in medical sciences), post-doctoral, and fellowship attachment. As UM has developed its capabilities to offer quality postgraduate training, the number of faculty members for master's and doctorates has decreased in the last five years; instead, subspecialist training, post-doctoral and fellowship attachments have increased.

Between 2014 and 2018, 70 faculty members were sent abroad. Out of these, 37 attended subspecialist trainings or fellowship attachments, 20 went for post-doctoral attachments, 10 for doctorates, 2 for master's and 1 for a graduate diploma program (see Table 2.11). Approximately half of these faculty members were sponsored by the MOHE/MOE, while the other half were supported by the internal resources of the university (see Table 2.12). Table 2.13 illustrates the breakdown of countries where these faculty members studied. As expected, the United Kingdom, Australia and United States were the top three destinations.

Figure 2.4: UM - Percentage of faculty members who have studied abroad for at least one of their higher education qualifications



Source: University of Malaya Expert Directory. Accessed September 6, 2018 at <https://umexpert.um.edu.my/>

Table 2.11: UM - Levels at which faculty members studied abroad in the years 2014–2018

Level	2014	2015	2016	2017	2018	Total
Sub-specialist / Fellowship	6	15	5	4	7	37
Post-Doctoral	5	8	3	1	3	20
PhD	4	1	4	0	1	10
Masters	1	0	1	0	0	2
Graduate Diploma	0	1	0	0	0	1
Total	16	25	13	5	11	70

Source: Personal communication with Department of Human Resources, UM

Table 2.12: UM - Sponsorship for faculty members to study abroad in the years 2014–2018

Sponsorship	2014	2015	2016	2017	2018	Total
University of Malaya	4	10	10	5	7	36
Ministry of Education	12	15	3	0	4	34
Total	16	25	13	5	11	70

Source: Personal communication with Department of Human Resources, UM

Although there is a lack of adequate statistics to illustrate the overall pattern of sending faculty abroad to study over the five years, anecdotal information suggests that, in recent decades, UM has scaled down the number of faculty members sent abroad for master's and doctoral studies. The reduction was because a large majority of faculty members in UM already have doctorates as the minimum qualification to work in the university, and the university has no difficulty in attracting candidates with doctorates for academic positions.

From the late 2000s onwards—even for those sponsored by UM to pursue doctorates abroad or even at another local university—there was an additional requirement that mandated these future staff not only to obtain a doctorate but also to produce a minimum of two publications in ISI journals annually. There were instances where faculty members were sent abroad for doctoral studies and returned without fulfilling the publication requirement, despite having successfully obtained their doctorate. Consequently, the academic position promised to them is offered as a three-year contract instead of a permanent post. The three-year contract, in the view of the university, is to ensure these faculty members are able to meet the publication requirements before they are employed as permanent staff members. This practice has created some difficulties for faculty members who were pursuing their doctorate abroad, as they may not be in a position to publish—specifically those in social sciences and humanities—while undertaking a doctoral research project.

Table 2.13: UM - Countries where faculty members studied abroad from the years 2014–2018

Country	2014	2015	2016	2017	2018	Total
United States	3	2	2	0	3	10
Australia	1	7	1	2	1	12
Canada	1	1	0	0	0	2
China	0	0	1	0	2	3
Hong Kong	0	1	0	0	0	1
India	1	0	1	0	0	2
Ireland	0	1	0	0	0	1
Japan	2	2	1	0	1	6
New Zealand	3	0	0	0	0	3
Singapore	0	1	3	0	0	4
United Kingdom	5	10	2	1	4	22
Saudi Arabia	0	0	0	1	0	1
Others	0	0	2	1	0	3
Total	16	25	13	5	11	70

Source: Personal communication with Department of Human Resources, UM

As the doctorate gradually became the universal qualification for an academic position in UM, the initiative to send faculty members abroad has switched to post-doctoral and specialist training. There remains a significant proportion of faculty members who have obtained their doctorate either in UM or other Malaysian universities and, therefore, may not have received international exposure. Hence, to

provide international exposure, together with the MOHE, UM has provided post-doctoral opportunities—especially for those who did their doctorate locally. These faculty members are allowed to go abroad for a year or two with the full support of the university and ministry. Concurrently, in the medical schools, faculty members who have done their specialist training locally in UM or other Malaysian universities are given opportunities to pursue subspecialist training abroad. This recent development has seen the number of staff being sent abroad for post-doctoral and subspecialist exceeding those who went to pursue their doctorates.

Fellowships and sabbaticals are other avenues for UM to send its faculty members abroad for them to gain international exposure, as well as to develop and enhance their international networking and linkages. Strictly, however, these may not be considered part of studying abroad. Permanent faculty members are entitled to a six-months sabbatical after serving three years or nine-months after five years. When the economic situation was good, sabbaticals to go abroad were accompanied by fellowships and financial support from the university. However, in recent years, when the economic situation has been difficult, financial support was discontinued, with some faculty members opting instead to spend their sabbaticals in other universities locally or remaining within the university. The lack of statistics has hindered us from providing a more thorough picture of sabbatical arrangements and the potential impact of sending faculty members abroad.

If the intention of encouraging faculty members is to gain international exposure or develop international linkages, some alternative avenues that could have been explored by UM are available. One of these is to encourage faculty members to seek short-term employment with other universities abroad. These employment opportunities can be taken in terms of adjunct, visiting, or even short- to medium-term contracts. While this avenue can enhance the international profile of UM, the human resource structure of the university is highly entrenched in the PSD, and ad-hoc arrangements such as no-pay leave, temporary secondment, or an extended leave of absence without pay are difficult to arrange. Hence, faculty members who have opportunities abroad tend to leave the university instead of exploring these alternative avenues that may benefit UM in the long term. Retaining these faculty members would help to enhance the university's international profile while at the same time further developing its academic talents.

More important is that the university may not need to explore these alternative avenues to enhance its international exposure and its global profile through Malaysian faculty members due to the strong presence of international faculty members, as highlighted earlier. From the perspective of the institution, its international profile and networking can be developed through these international staff who are “cheaper” to hire on a contract basis and have fewer complications when terminating their positions compared with permanent local faculty members. At the same time, it ensures that the institution will become more productive and competitive in the ranking exercise. Conversely, the international exposure of local faculty members inevitably puts the institution at risk of a brain drain in terms of losing these staff to foreign institutions when they are well-exposed and well-trained. Hence, with such a dilemma looming over the initiative to send faculty members abroad for study, training or short-term employment/attachment, the institution has to consider the benefits and costs of these international activities.

2.3.4 International Aid

The Asia-Europe Institute (AEI), hosted by UM, is one of the initiatives that has the element of international aid, or more precisely, a project initiated with the cooperation and support of a number of international parties.

The idea began at the Asia-Europe Meeting in 1996 to strengthen higher education linkages between Asia and Europe. Thus, the AEI and its programs are normally listed as one item on the agenda of the Asia-Europe Meeting of Ministers for Education (ASEM). The Government of Malaysia then proceeded to establish the Asia-Europe Centre in 1997 and transformed it into Asia Europe Institute (AEI) in 2000. Apart from contributions from the Government of Malaysia, the institute has received support from

various embassies and international scholars. For instance, the Director of the DAAD in Kuala Lumpur would normally be affiliated with the AEI and give lectures. The institute also acts as the platform to coordinate intra- and inter-regional network scholarships for Asia and Europe. Instead of sending students to study abroad, the establishment of the Asia-Europe Institute was intended to bring students and academics from Europe and Asia to congregate at UM. Thus, the institute became a significant part of receiving international students to study in Malaysia.

In the last decade or so, international aid to Malaysia and specifically UM has expectedly been very limited. As Malaysia has progressed from being a newly independent nation in 1957 and gradually became a middle-income nation with the aspiration of becoming a developed nation by 2020, international aid in financial terms has significantly reduced. While Malaysia benefited from development aid programs, such as the Colombo Plan in the 1960s and 1970s, these opportunities are now being channeled to the least developing or low-income nations. Hence, there has not been much international aid received by UM in recent decades.

It is important to note the initiative taken by the Malaysian Government to promote and advance study and research related to science and innovation in Malaysia, which has benefitted UM. The Malaysian Global Science and Innovation Advisory Council (GSIAC) facilitated UM's collaboration with reputable laboratories in the US. The presence of Nobel laureates, eminent global academics, as well as researchers in GSIAC has made it possible for a reputable university such as UM to establish collaborative arrangements with other reputable universities in the US. For that, the US continues to be an important destination for post-doctoral training after the UK. For instance, scientists from UM joined forces with Harvard University in a bid to revolutionize the treatment of lung diseases through the delivery of nanomedicine deep into areas that would be otherwise impossible to reach. Facilitated by GSIAC, scientists from UM and Harvard entered into a five-year collaboration, which aimed to provide opportunities for the two parties to work together to seek a safe, more effective way of tackling lung problems (University of Malaya 2016).

2.3.5 Impact of Studying Abroad

A significant proportion of faculty members of UM had the opportunity to study abroad, with the initial batches predominantly going to the UK. While these have maintained ties and collaborations with universities in the UK, the impact has also seen UM maintaining the characteristics of a British university. However, as the destinations of faculty members have diversified, other elements and influences, such as the American system, have permeated and jointly influenced the development of the university into a university with "hybrid" characteristics (Lee et al. 2017). For instance, while the university maintains the use of "faculty" and "Vice-Chancellor," the academic system has adopted a semester and grade point structure.

Based on the fact that the UK, Australia and the US have remained the top three destinations where UM sends its faculty members abroad for postgraduate, post-doctoral and specialized training, one of the significant impacts has been that these three countries have also been the top three foreign collaborative partners (Baker 2018). In other words, the collaboration and cooperation that was developed while these academic staff were receiving their training has been further enhanced into partnerships in terms of shared research projects and co-authorships in publication.

However, to send faculty members and students to study abroad, be it short training attachments or entire programs, is a costly endeavor. The university is, therefore, heavily reliant on the government to provide the funding for these activities abroad. In recent years, when the economic situation became difficult and funding from the Government to public universities was drastically decreased, initiatives to support study abroad have become a huge financial challenge for universities, including UM. Hence, in such an economic climate, the benefits and impacts of studying abroad will be more critically evaluated, and it will be more difficult to justify the increased costs and the risks for the institution of sending its staff abroad for study, training or attachment. Increasingly, the government and university have urged faculty members to consider sourcing external funding. However, this can be difficult. Industries and businesses

would not be keen to support such initiatives, as there are limited returns to their investment. Given that Malaysia is categorized as a middle-income country, financial aid is also scarce as priorities tend to be geared toward least- and low-developed countries.

Ultimately, it is for UM to evaluate the benefits and impacts of such initiatives for individual faculty members and the institution. Conceptually, there are two sets of benefits and impacts: individual and institutional. Consideration for both sets and balancing them with the risks and costs to the individual and institution is important and crucial, particularly in the current economic climate. There are other alternative avenues, such as short-term employment abroad or paid attachment, that the university can consider for their faculty members to enable them to gain international exposure and develop international linkages and collaboration, as well as for the institution to enhance its international profile. In a nutshell, the impact of such international activity should be considered in ways that go beyond the benefits of merely studying abroad but instead to widen the range of academic activities on offer throughout the career of the faculty members.

2.3.6 Conclusions

UM has traditionally sent its faculty members to pursue their studies abroad. Many of those who were not sponsored by the university through the government or otherwise also had some experience of studying abroad, with more than half of the faculty members completing at least one of their degrees outside of Malaysia. The university has benefited from the experience of these faculty members, but there remains a lack of monitoring and documentation within the institution to capture the impact of these academic experiences. The research team has had to rely on anecdotal evidence to infer possible influence and impact of faculty members who had studied abroad on the development of UM.

Apart from sending faculty members to study abroad, UM also has policies to internationalize through the presence of a significant group of international faculty members that contribute to the internationalization-at-home agenda. In addition, the university has also developed extensive networks with foreign institutions, with many of the networks intended to enhance student exchange programs. These exchange programs provide both inbound and outbound ways to internationalize the university.

Part III: Malaysia and the Impacts of Studying Abroad

3.1 Summary & Conclusions

The development of higher education in Malaysia is inevitably linked to human resources development, and historically, Malaysians were trained both locally and abroad to meet HRD objectives. Since 1990, the primary task of Malaysian higher education institutions has shifted from simply planning for the development of human resources to planning and producing human capital, deemed important for the national agenda. Increasingly, the performance of the system and the higher education institutions is being measured in terms of graduate employability as well as building the talent of Malaysians in national and international contexts. In this respect, public universities in Malaysia have a long history of sending faculty members to study abroad, particularly for postgraduate degrees or highly specialized trainings. The number sent overseas for further studies have increased significantly between 1980 and 2000 as many new public universities were established. Study abroad or time spent abroad for faculty members has been and continues to be justified on the assumption that experience or exposure abroad is beneficial to institutions and the higher education system. However, study abroad has been shown to be affected by both domestic circumstances and global geopolitics, as well as the economic situation. When faced with financial constraints the government, particularly the public universities, were concerned with increasing non-completion of studies among those sent overseas. More recently, however, the global health situation could be added as a major disruption to studying abroad.

To conclude, the Federal Government's human resources development policies and MOHE's aspiration to internationalize Malaysian higher education and institutions have enabled many Malaysians to study abroad, either on their own or with government sponsorship. In some instances, funds for study abroad were provided in collaboration with other donor countries or agencies. During difficult economic times, for obvious reasons, privately funded and sponsored students are encouraged to study locally. Time spent abroad is believed to have benefited Malaysians when they are back in Malaysia serving universities and the government. However, difficult economic circumstances may require some rethinking of ways to achieve international exposure for academic staff in particular. The COVID-19 pandemic and its attendant impacts have presented Malaysia with a different challenge in the context of studying abroad. In this respect, the MEBHE needs resetting with a serious re-alignment and updating of the plan's ten shifts for relevance in the post-pandemic era. Specifically, internationalization agenda need not depend totally on physical mobility, and teaching and learning need to adopt a hybrid approach.

3.2 Prospects

In the current and immediate post-pandemic context, there are still some constraints on regaining the momentum for study abroad among pre-service and in-service academic staff of public universities. Admittedly, even before the COVID-19 pandemic, Malaysian public universities were already reviewing their policies of sending staff for further trainings abroad. Among other things, this decision was prompted by the high incidence of non-completion of studies among those sent to study abroad, thus affecting universities' human resources planning and resource allocations for training from central agencies. Additionally, there will be other costs to universities and also to staff who have failed to successfully complete their studies. There are legal complications arising from such unfortunate circumstances for the staff and the universities.

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Appendix 1: USM - Awards and recognition, 2019-2022

Awards and recognition / stewardships, 2019	
Total number of recognition / stewardships conferred by international academic and professional bodies for research excellence	8
Total number of awards conferred by national academic and professional bodies for research excellence	14
Total number of recognition / stewardships conferred by national academic and professional bodies for research excellence	3
Research exhibition awards (gold medal / special awards)	35
Other research awards	62
TOTAL	122
Awards and recognition / stewardships, 2020	
Total number of awards conferred by international academic and professional bodies for research excellence	3
Total number of recognition / stewardships conferred by international academic and professional bodies for research excellence	7
Total number of awards conferred by national academic and professional bodies for research excellence	2
Total number of recognition / Stewardships Conferred by National Academic and Professional Bodies for Research Excellence	7
Research exhibition awards (gold medal / special awards)	17
Other research awards	68
TOTAL	104
Awards and recognition / stewardships, 2021	
Total number of awards conferred by international academic and professional bodies for research excellence	1
Total number of recognition / stewardships conferred by international academic and professional bodies for research excellence	5
Total number of awards conferred by national academic and professional bodies for research excellence	6
Research exhibition awards (gold medal / special awards)	24
Other research awards	81
TOTAL	117
Awards and recognition / stewardships, 2022	
Total number of awards conferred by international academic and professional bodies for research excellence	2
Total number of recognition / stewardships conferred by international academic and professional bodies for research excellence	1
Total number of awards conferred by national academic and professional bodies for research excellence	8
Other research awards	
TOTAL	11

Source: Personal communication with Pusat Perancangan Institusi dan Strategik (IPSC), USM.

Appendix 2.: UTM - Number of SLAB/SLAI/POST-DOC sponsored by Ministry of Higher Education (MOHE) from year 2011 - 2018 by field and level of studies

Field	Masters	PhD	Post-Doctoral	Total
Architecture and Town Planning		1		1
Bacterial Toxins			1	1
Modern Languages		1		1
Architecture/Surveying/Evaluation		2		2
Biochemistry		1		1
Biology			1	1
Biosciences and Medical			2	2
Biotechnology		2		2
Chemistry			1	1
Civil Engineering		1		1
Physics		1		1
Medical Physics		1		1
Geoinformatics		4		4
Engineering	1	32	9	42
Civil Engineering		7	3	10
Civil Engineering - Urban and		1		1
Engineering Biochemistry		1		1
Biomedical Engineering		3		3
Bioprocess Engineering		1		1
Electric Engineering		12	1	13
Electric & Electronic Engineering		1		1
Electric Engineering (Power)		1		1
Electronic Engineering		1		1
Gas Engineering		2	1	3
Geomatic Engineering		1		1
Chemical Engineering			5	5
Mechanical Engineering		17		17
Mechanical Engineering		1		1
Nuclear Engineering		4		4
Software Engineering			1	1
Medical Engineering		9		9
Petroleum Engineering		11	1	12
Structural Engineering		1		1
Finance			1	1
Finance and Islamic Banking		1		1
Chemistry		1		1
Communication			1	1
Others		1		1
Languages		1		1
Landscape Architecture		2		2
Applied Linguistics		1		1
Mathematics		1		1
Self-Development		1		1
Education		18	3	21

Arabic Studies and Islamic			1	1
Language Studies		1		1
Islamic Studies		1		1
Planning and Town Studies		1		1
Management		10		10
Environmental Management		1		1
Estate Management		1		1
Human Resource Management		1		1
Land Administration and		1		1
Business Administration		1		1
Urban and Regional Planning		3		3
Business		1	1	2
Psychology		1		1
Industrial Design		1		1
Science		13	5	18
Medical Sciences		1		1
Biomedical		1		1
Computer Science		7	1	8
Mathematical Sciences		1	1	2
Social Sciences		1		1
Interior Architecture		1		1
Landscape Architecture		1		1
Geoinformation Systems		1		1
Human Resources	1			1
Islamic Civilization		1		1
Technology			1	1
Quantity Surveying		1		1
Urban Design		1		1
Total			41	

Source: Personal communication with UTM

Appendix 3: UM-Exchange programmes sponsored by private corporations

- Universitas Indonesia (Indonesia)
- Petra Christian University (Indonesia)
- Udayana University (Indonesia)
- BINUS University (Indonesia)
- Airlangga University (Indonesia)
- Institut Teknologi Sepuluh Nopember (Indonesia)
- Singapore Management University (Singapore)
- Nanyang Technological University (Singapore)
- National University of Singapore (Singapore)
- Chulalongkorn University (Thailand)
- Burapha University (Thailand)
- King Mongkut University of Technology Thonburi (Thailand)
- Bangkok University (Thailand)
- Suan Sunandha Rajabhat University (Thailand)
- Universiti Brunei Darussalam (Brunei)
- Meio University (Japan)
- Okayama University (Japan)
- Sophia University (Japan)
- Kwansei Gakuin University (Japan)
- Ryukoku University (Japan)
- Kanagawa University (Japan)
- Tokushima University (Japan)
- Tohoku University (Japan)
- Hosei University (Japan)
- Yonsei University (Japan)
- Chiba University (Japan)
- Busan University of Foreign Studies (South Korea)
- Gachon University (South Korea)
- Hallym University (South Korea)
- KDI School of Public Policy and Management (South Korea)
- Konkuk University (South Korea)
- Hansei University (South Korea)
- Inha University (South Korea)
- Chonnam National University (South Korea)
- Kwangwoon University (South Korea)
- Sogang University (South Korea)
- Seoul National University (South Korea)
- Dongseo University (South Korea)
- Korea University (South Korea)
- Chonnam National University (South Korea)
- Pusan National University (South Korea)
- University of Hong Kong (Hong Kong)
- Sun Yat-sen University (China)
- Southwestern University of Finance and Economics (China)
- Beihang University (China)
- Duke Kunshan University (China)
- National Chengchi University (Taiwan)
- National University of Kaohsiung (Taiwan)
- National University of Kaohsiung (Taiwan)
- National Chung Cheng University (Taiwan)

- National Taiwan University (Taiwan)
- National Cheng Kung University (Taiwan)
- Manipal Academy of Higher Education (India)
- Amrita University (India)
- Jawaharlal Nehru University (India)
- University of Queensland (Australia)
- Karabuk University (Turkey)
- University of California Irvine (United States of America)
- El Colegio de Mexico (Mexico)
- University College London (United Kingdom)
- University of Bristol (United Kingdom)
- School of Oriental and African Studies (United Kingdom)
- Queen Mary, University of London (United Kingdom)
- Sciences Po (France)
- INSA Toulouse (France)
- University of Zurich (Switzerland)
- Otto Beisheim School of Management (Germany)
- Technische Universität München (Germany)
- University of Applied Sciences (Austria)
- University of Southern Denmark (Denmark)
- Universitets- och högskolerådet (Sweden)
- Charles University (Czech Republic)
- University of Hradec Kralove (Czech Republic)
- University of Pisa (Italy)
- Tomsk State University (Russia)
- Solvay Summer School (Belgium)
- University of Almeria (Spain)
- Universidad Católica de Murcia (Spain)