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Transforming Malaysia's Higher Education: Policies and Progress

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Transforming Malaysia's Higher Education: Policies and Progress

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Research Highlights

- Documents Malaysia's policies for improving the quality of higher education and the key areas that are emphasised
- Reviews its quality achievements based on targeted key performance indicators
- Examines challenges in using key performance indicators to measure quality
- Suggests policies for improving the measurement and management of quality in higher education

Abstract

Malaysia's higher education has a substantial number and diverse types of providers, which have improved access in this sector. Malaysia aspires to improve the quality of higher education to enhance the development of human capital. The paper assesses policies that have been undertaken to improve the quality of higher education, including measurements used for monitoring quality improvements and their outstanding challenges. The key performance indicators targeted for monitoring quality improvements indicate some targets have been achieved. A review of the approach used to measure performance and a consolidation of the sector are needed for the quality to further improve.

Keywords: education, indicators, performance, public, private

1. Introduction

Post independence, Malaysia's higher education sector started with one public university in 1962 and two private colleges offering transnational education such as "twinning" programmes as they were not allowed to confer degrees. Higher education policies focused on increasing access by expanding the number of public and private higher education institutions (PrHEIs). By 2001, there were 16 public universities (PUs) and 706 PrHEIs. The expansion of private provision was facilitated with the enactment of the Private Higher Education Institutions Act (PHEIA), 1996, which allowed PrHEIs to confer degrees. This was accompanied by other acts to govern and enable a more orderly development of private provision, which was unregulated prior to 1996.

The greatly expanded higher education system while increasing opportunities for higher education has raised increasing concerns over the quality of higher education. As noted by Mukherjee et al. (2017), the rapid expansion of the higher education sector has produced a limited talent pool and graduates who are not necessarily globally competitive, contrary to the human capital aspirations of the country.

The quest for improving the quality of higher education (HE) can be traced back to a World Bank study (2007) that was conducted for the Economic Planning Unit (EPU) as an input for the Ninth Malaysian Plan (9MP: 2006-2010). The study raised the need to build a world class higher education system, whereby quality plays a key role for meeting the needs of a knowledge-based economy. Improving the quality of HE is subsequently included in the five-year plan documents of the country. For example, the Eleventh Malaysia Plan (11MP: 2016-2020) and the Twelfth Malaysia Plan (12MP: 2021-2025), linked the quality of higher education with respectively, human capital and future talent, underscoring the importance of this factor for driving economic growth.

The paper assesses policies that have been undertaken to improve the quality of higher education, including measurements used for monitoring quality improvements and their outstanding challenges. It is divided into five sections. After the introduction in section 1, a brief overview of Malaysia's higher education sector is provided in section 2. Policies for improving quality in higher education, indicators used to monitor performance and the achievements to date, are presented in section 3. Section 4 analyses the outstanding challenges and their policy implications. Section 5 summarises the main findings of the paper as a conclusion.

2. Overview of Malaysia's Higher Education

Malaysia has a diverse higher education sector, comprising PUs, PrHEIs, polytechnics, and community colleges. In 2021, there are 20 PUs, 389 PrHEIs, 36 polytechnics and 104 community colleges. This paper focuses on public and PrHEIs as the enrolment in these far exceeds that in polytechnics and community colleges. The share of total student enrolment for the year 2021 are 49%, 43%, respectively for PUs and PrHEIs. Polytechnics and community colleges each take up the remaining seven and one percent (MOHE, 2022).

PUs are not homogenous as there are four comprehensive universities, five research universities and 11 focused universities. Comprehensive universities have a ratio of undergraduate to postgraduate of 70:30 while research and focused universities are more research-oriented, with a ratio of undergraduate to postgraduate of 50:50. The universities also differ in age, enrolment, and location.

PrHEIs are even more diverse compared to PUs, as there are four types (Table 1): universities that can award their own degrees based on home-grown programs; university colleges that conduct transnational programs completely in Malaysia and that are allowed to confer degrees in designated disciplines; private colleges that conduct transnational programs but do not confer degrees; and branch campuses which are operated by locally incorporated companies whereby the home country of the branch campus have some degree of equity ownership.

Table 1

Private institutions also differ substantially from each other in age, enrolment, and location. More importantly, since they do not receive any funding from the government, they have different funding sources which can affect their financial sustainability. Some large PrHEIs, as in the case of government-linked universities (GLUs), have financial support from government-linked companies such as Tenaga Nasional Berhad (National Energy Limited) while others may be funded in part by large corporations or political parties. Many, however, are completely dependent on student enrolment and fees for their financial sustainability, making them financially vulnerable in the highly competitive private supply market.

This large variety of institutions has created different pathways for higher education. Since PUs are supported by the government, the fees are subsidised making it affordable for many. Limited public supply created excess demand which then led to the development of private universities, which are much more expensive than PUs. PrHEIs have increased access and equity by increasing opportunities for more students, offering various programs at different costs, besides improving gender imbalance (Tham, 2011). Government assistance is provided in the form of student loans; fiscal incentives for investments in the establishment of these institutions; research grants; and scholarships for students. Scholarships from outside the government such as private organisations are also available for students to study in these institutions.

3. Policies, Indicators and Achievements

Policies

The Ministry of Higher Education (MOHE) and Ministry of Education (MoE) have published numerous policy documents that aim to transform the education sector, including higher education. The latest policy directions are encapsulated in the Malaysia Education Blueprint (Higher Education) 2015-2025 (MEB(HE)) launched in 2015. It is

an extension of the Malaysia Education Blueprint (MEB: Pre-school to Post-Secondary Education) 2013-2025.

MEB(HE) aims to spur Malaysia's higher education towards excellence nationally and it also aspires to be among the world's leading education system. It is aligned with MEB's five major goals, which are access, quality, equity, unity, and efficiency. Higher education's quality aspirations focus on the quality of the system, institutions, as well as graduates. It aims to support the development goals of the country as expressed in the five-year plans by directing policy attention towards placing Malaysia on the world map in higher education through publishing articles in high impact journals, conducting quality research, and delivering high value education that attracts and retains international postgraduate students (MOE, 2015).

The policy document has put forth ten different strategies for attaining all five aspirations in the blueprint, with the outcomes expressed in terms of specific indicators that are used to monitor the performance of higher education for the plan period. This has been the practice since the National Higher Education Strategic Plan 2007-2020 (MOHE, 2007), which started the trend of using indicators purposively to monitor performance. Thus, the department of higher education under the Ministry of Higher Education (MOHE), as one of the custodians of the blueprint, has put forth a strategic plan (MOHE, 2017), that sets out the strategic objectives, performance indicators and targets for monitoring purposes. This is particularly important for PUs as government funding is shifting from full funding towards partial funding with a performance-related component based on these performance indicators.

PrHEIs have expanded and contribute as much as half of the total number of students enrolled as well as 70% of the international students. Consequently, a separate policy document was put forth in 2020 to chart the way forward for these institutions (MOE, 2020). Internationalisation plays a key area in the plan for these institutions as in previous plans. This is because the number of international students in PUs is capped at 5% for critical fields such as engineering, medicine and at 10% for the social sciences. Domestic students are prioritized as public funding is used to finance these institutions. Recruitment of international students at PUs is mainly concentrated in postgraduate studies in line with their mandate to increase the enrolment of postgraduate students for spurring research and innovation. International students are also valued as contributors to export earnings and Malaysia's drive to be an international student hub as part of the strategic shift towards global prominence in MEB(HE). The international component in terms of students and staff is also used to contribute towards the ranking race of higher education institutions.

Indicators and Achievements

Quality Graduates

For quality graduates, the employability of graduates is an on-going concern, and it is measured by the percentage of graduates that are employed each year. While the

MEB(HE) puts a general target of more than 80 percent by the year 2025, the percentage of employed graduates in the strategic plan is increased progressively from 78% in 2018 to 82% by 2022 (Table 2). Employed include employed, further study, upgrading skills and waiting for work placement at the time of convocation which is three to six months after completion of study. Figure 1 shows that the target of over 80% has been met since 2018 and it is increasing over time.

Table 2

Figure 1

Quality Research

Malaysia's research quality is assessed by an instrument called Malaysian Research Assessment (MyRA), which was constructed under the auspices of the Ministry of Higher Education. It was first implemented in 2006 to gauge the research, development and innovation activities in PUs and tertiary institutions with university status, the branch campuses of foreign universities and university colleges. Universities are assessed based on three main dimensions, covering eight main criteria, namely quantity and quality of researchers; quantity and quality of research; quantity and quality of postgraduate candidates; innovation; professional services and gifts; networking and linkages and support facilities. The outcome of the research, development and innovation assessment and achievement is categorised into six levels, with 'six stars' being the highest level and 'one star' the lowest.

The results of the first assessment announced in 2011 showed that four PUs obtained six stars, while another PU and two private universities obtained five stars (Mohd Shahir, undated). In the 2014-2015 MyRA rating, six universities achieved the highest rating of six stars, although the number which obtained five stars were not reported (Lee and Ong, 2017). Unfortunately, the databank is not made public and there has been no media announcement since then from the ministry. A search on the websites of 20 PUs and 4 GLUs, press releases, and social media posting between the year 2018 till 2021, show 6 universities (5 RUs and 1 GLU) achieved 6-star and another 6 universities (2 Comprehensive, 3 Focused and 1 GLU) have achieved 5-star rating. Thus, the set target of PU and GLU rated 5-star and above for MyRA has been achieved.

Quantity and Quality of Publications

Publications as a measure of the research output or productivity of an academic is used for recruitment and promotion purposes in all universities, including increasingly in private universities, for ranking purposes as more private universities join the ranking race. Hence, although there are no KPIs set for this in MEB(HE) and the strategic plan, each institution of higher education monitors this indicator annually for its own internal staff assessment and reporting to the ministry, including for MyRA as well as other rating purposes.

The Ministry of Education has also conducted its own publications assessment. In 2019, the department of higher education within the ministry partnered with Quacquarelli Symonds (QS) to publish a report on the knowledge output of Malaysia, including research output in the form of publications and its impact, measured through normalized citations per publication. They found that publications have increased from 8,676 publications in 2014 and 22,751 in 2018, with a Compound Annual Growth Rate (CAGR) of 5%. In terms of impact, Malaysia's Field-Weighted Citation Impact (FWCI) was 6% lower than the global average, but it is higher than the world average in three fields, namely medicine, physics and astronomy and veterinary science.

Quality Systems

The U21 rankings is used as it is the only ranking that assesses the higher education system instead of individual institution. This ranking was initiated by Universitas 21, an international network of research-intensive universities and aims to assess the conditions for higher education institutions to contribute to economic and cultural development, provide high quality experience for students, and assist institutions to compete effectively for overseas applicants. Twenty-four indicators are used to represent four dimensions of a country's higher education system, covering resources, environment, connectivity and output.

At the time MEB(HE) was formulated, Malaysia's ranking in U21 had improved from 36 in 2012 to 25 in 2017. This fell subsequently to 28 in 2019 before improving to 27 in 2020 (Williams & Leahy, 2020). Out of the four dimensions, Malaysia is ranked lowest in the output pillar, at 45 out of the 50 countries (Table 3). The output dimension is constructed based on a few indicators, namely number of research documents produced, citation of research documents, performance of institutions in Shanghai Jiao Tong rankings, proportion of students, graduates and researchers in population, and unemployment rate of those with tertiary qualifications. It has also deteriorated from its rank in 2014 and it is far from the rank (25) targeted in MEB(HE) for 2025.

Table 3

Quality Institutions

One of the measures used to measure institution quality is the World University Ranking (WUR). While there are many ranking systems, the ranking system used in the blueprint and the strategic plan is the QS World University Rankings (QS WUR) because it is the oldest global ranking system.

QS WUR uses six key metrics which have different weights. These are academic reputation (40%), employer reputation (10%), faculty/student ratio (20%), citations per faculty (20%), international faculty ratio (5%) and international student ratio (5%). Table

4 shows the performance of participating Malaysian universities in the QS WUR ranking. The target to have two Malaysian universities ranked at top 100 in QS WUR has not been achieved in 2022 as only one institution, University of Malaya (UM) was ranked 70. But there is still time to meet the target as it is to set to be achieved by 2025.

In terms of overall performance, many universities have improved in their respective ranking since 2013/14 and with a significant jump for some. For example, Universiti Putra Malaysia (UPM)'s ranking jumped from the bracket 411-420 to 123. Several PrHEIs have also participated and were listed in the ranking in recent years, including for example, Taylor's University, Universiti Teknologi Petronas (UTP), and UCSI University.

Regionally, the target is to have one institution ranked top 25 in Asia. Figure 2 shows that Universiti of Malaya has achieved it in 2018 (rank 24) and its ranking continued to improve to top 8 in 2022.

Table 4

Figure 2

Malaysian universities were ranked in top 50 for six subjects: four in Arts & Humanities and Social Sciences & Management and two in Engineering and Technology from eight universities (Table 5). There is a substantial gap to the set target of 20 subjects in the top 50, by 2022.

Table 5

Besides the world university ranking systems, there are also home-grown rating systems. These include Rating System for Higher Education Institutions in Malaysia (SETARA) for universities and university college, and Malaysian Quality Evaluation System for Private Colleges (MyQUEST) for colleges, which were introduced in 2007 and 2009 respectively.

SETARA assessment covers three core functions, namely teaching, research and services. The weight for each of these functions commensurate with the age and type of HEIs. There are three categories of institutions, mature university (over 15 years), emerging university (within the last 15 years) and university college (UC) regardless of the year of establishment. The weight for research is higher for mature university (20%) compared to university college (5%). Similarly, there is a greater weight for teaching for UC (50%) than mature universities (30%). Mature universities are tasked to build their capacity in research and expand their services while emerging university and UCs are to strengthen their teaching. HEIs are rated from Tier 6 (6-Star for Outstanding) to Tier 1 (1-Star for Poor).

In the 2013 SETARA ratings, all universities were rated as Tier 5, or Tier 4, implying that all Malaysian universities are performing rather well while ignoring the vast

differences between them, thereby casting some doubt on the validity and usefulness of this instrument (Lee and Ong, 2017). Based on the latest SETARA rating results for 2018/2019, the performance is below the target set for year 2019 (Table 6). The percentage of university achieving Tier 4 and above for mature university, emerging university and university college are respectively 88%, 50% and 37% against the respective targets of 94%, 80% and 70%.

Table 6

MyQUEST measures five quality criteria: student profile, programme recognition, graduate recognition, quality of resources and soundness of governance. The participation is by invitation to established colleges who have completed the graduation of at least one intake and must satisfactorily fulfil all five quality criteria. The assessment categorized colleges based on the number of student enrolment, these include large (more than 2,000), medium (601–1999) and small (less than 600) students. The participating institution will receive a rating based on their level of achievement which ranged from 1 star as less competitive to 6 stars as highly competitive. The target of 40% of private colleges achieving 4 star and above rating for year 2019 was attained (Table 7).

Table 7

Internationalisation

The targets set by the strategic plan in Table 2, differ from those set in an earlier policy document, namely National Higher Education Strategic Plan (NHESP) in 2007. The target then was to attract 100,000 of international students by 2010; 150,000 by 2015; 200,000 by 2020 and 250,000 by 2025 (MOHE, 2007). Both were not achieved as the country attracted 86,919 international students in 2010; 122,061 in 2015 and 95,954 in 2020 (MOHE, 2021a).

The highest enrolment achieved was in 2017 with 136,293 international students (Figure 3). Notably, the enrolment of international students fell from 130,245 students in 2018 to 93,569 students in 2020. Unfortunately, the emergence of the Covid-19 pandemic in 2020 and 2021 has caused border closures which has negatively impacted the inflow of international students. The number of students continued to decrease to 87,235 in 2021. Since 2019, the number is far below the targeted 100,000 students implying a significant gap in meeting the set target.

Figure 3

Diversity in the campus population includes international staff as it would enhance the learning experiences of students. The target is measured by the percentage of international staff to total staff. Figure 4 indicates that PrHEIs have exceeded the target and recruited a higher share of international staff compared to public HEIs, which is still far below the target. PrHEIs may have more collaboration with foreign institutions through franchise, twinning and double degree programmes that may require the presence of international staff from partner universities abroad. There is a gradual decrease in international staff since 2019, partly due to the Covid-19 pandemic restricting the mobility of international staff and the use of digital technology to replace physical lectures or visits.

Figure 4

4. Challenges and Policy Recommendations

Monitoring Performance

The increasing use of quantifiable indicators to monitor performance is part of the metric tide (Wilsdon *et al.*, 2015) that seeks to assess research performance based on specific indicators. While MOHE is aware and acknowledge the limitations of using some of the indicators, it nevertheless continues to do so, especially in the wake of increasing calls for accountability due to the large budget allocated for the education sector. Consequently, it is important that appropriate indicators are used, and their measurements are open and transparent to facilitate accurate interpretation of these indicators, as well as potential verification by third parties. In particular, the use of a single indicator may not present a comprehensive view of something as inherently complex as quality.

For instance, MOHE used employment to measure employability which is a narrow perspective of employability. Employability encompasses a much broader concept than mere employment as it covers the capability to gain, maintain and excel in employment (Cheng *et al.*, 2022).

For policy purposes, the main challenge is facilitating employment that best uses the education of the graduate (World Bank, 2007). Although underemployment was raised as a possible concern in the blueprint (B-8 page 51), it was not included as an additional dimension to consider and monitor. Based on the data on graduate statistics compiled by the Department of Statistics (DOS), about one-third of graduates are employed in semi-skilled and low-skilled occupational groupings. Hence, it is not surprising that underemployment prevailed among graduates even before the onset of the Covid-19 pandemic in 2020.

Two types of under-employment are measured by DOS. First, time-related under-employment (TRU), whereby the employed work for less than 30 hours a week due to the nature of work or insufficient work, even though workers are willing to work for more 30 hours. The second is skill-related underemployment (SRU), whereby the employed

are employed in semi-skilled or low-skilled occupations, which do not require a tertiary education for work. Both TRU and SRU existed before the on-set of the Covid-19 pandemic in 2020-2021, with SRU being significantly larger than TRU. The data implies a structural problem, which was worsened by the pandemic as the intermittent lock-downs and health crisis affected businesses, leading to the exit of some firms (Figure 5).

Figure 5

More established Malaysian universities such as research universities (RUs) and government-linked universities (GLUs) also participate in the Times Higher Education (THE) World University Rankings. The methodology used in THE is based on 13 calibrated indicators grouped into five domains: teaching, research, citations, international outlook, and industry income. Unlike QS WUR, the reputation dimension is not included in THE as it is a separate ranking exercise, THE World Reputation Ranking.

The performance of participating Malaysian universities in THE WUR is far from the impressive ranking listed in the QS WUR. Table 8 shows the results of THE WUR from 2015-2022. UM is the highest ranked within the bracket of 301-350. Nevertheless, there is a vast difference in the ranking of RUs in QS WUR and THE WUR (Table 9). Moreover, in contrast to QS WUR ranking, only four PrHEIs were ranked in THE WUR; namely UTAR, UTP, UNITEN and UniKL.

The gap in performance implies the use of ranking systems with differing methodology will yield different results. The QS methodology relies more on reputation survey: Academic Peer Review (40%) and Employer Reputation (10%). For THE, only 23% of its indicators are collected through survey, which are Teaching Reputation (15%) and Research Reputation (18%). Therefore, using a single ranking system may not provide an adequate assessment on the quality of institutions.

Table 8

Table 9

Malaysia's instrumentalist use of internationalisation to fulfil its own economic gains led to the use of inbound students and faculty members as indicators of quality. The focus on these numbers alone ignores the multiple challenges faced by PrHEIs in the recruitment and enrolment of international students and staff (World Bank 2022). First, there are far too many PrHEIs for the Ministry to effectively monitor the compliance of these institutions to the regulations established for the management of international students. Second, the financial standing of some of these institutions have deteriorated due to the drop in enrolment of domestic and international students over the Covid-19 period. MOHE announced that 29,577 students in private HEIs had postponed their studies in 2021, due to family health and financial reasons (FMT, 2022). The substantial number of private institutions, challenges in ensuring regulatory compliance and declining

enrolment requires a re-thinking on the number of licenses that are renewed and awarded for these institutions

Even within this narrow definition which covers only some aspects of mobility, other indicators such as the success/completion rate of international students and their graduate labour market outcomes can be alternative meaningful measures. UK, for example, tracks international student satisfaction through survey data. Completion rates can be extracted from existing databases from the number of international students who have graduated from Malaysia each year, to complement enrolment data. Moreover, if outcomes are to be matched with objectives, then the export revenue generated by international students need to be estimated for monitoring purposes.

The educational intention of internationalisation recognises its contributions to be far more than purely economic outcomes like export revenues. These include for example core outcomes such as enhancing students' global outlook, knowledge, and faculty's research capacities through research collaborations. While the former is harder to measure, there are several databanks that can be tapped on to construct indicators on research collaborations, including the data submitted for ranking purposes to QS WUR, MyRA and SETARA and these can be used to enhance the Ministry's assessment on internationalisation beyond student and staff mobility. Unfortunately, these are not open-source data.

Overall, the use of indicators has led to the tendency to use these indicators as an end rather than as one of the means to an end. The measure has become the goal at the expense of other important but not measured or difficult to measure activities (Beerrens, 2022). Performance measures communicate what is deemed as important by the ministry and administrators. Stakeholders adjust accordingly to get the "best" performance as measured by the indicator. This makes the higher education sector vulnerable to the dysfunctional effects of measurement, such as a performance paradox, whereby scores are improving but the actual performance is not. An excessive focus on indicators can also lead to the measurement becoming something that can be gamed, instead of genuinely reflecting what it is intended to capture (Lee & Ong, 2017; Wan, 2021).

Policy Recommendations

In view of the challenges highlighted above, the following improvements are recommended.

Review of Indicators and Using Comparative Indicators

A review of the indicators used to measure quality is necessary. The use of any single indicator alone is likely to generate false conclusions. Even Elsevier has chastised that rankings and league tables are not meant to be stand-alone measurement and are best when used in conjunction with other indicators and data (Elsevier, 2021). Just like policies are refined to address current and outstanding needs, instruments also need to be refined over time.

Comparative indicators are crucial to analyse the issues of performance and the review need to include comparative indicators that can be used to assess quality measures, as mentioned in MEB (HE), but the alternatives are not defined in the blueprint. Alternative indicators to consider may include those compiled by other agencies such as DOS, which also compiles and publishes graduate statistics.

Much also needs to be done to improve transparency and openness. Methodologies used should be put in the relevant web-site, including the weights for variables used in the construction of an indicator as well as the conduct of surveys used for any of the indicators to avoid gaming the indicator. As the underlying rationale for the use of indicators is to assess performance for purposes of accountability, verification by third-parties can be a welcome check for any indicator constructed.

Improving Domestic Measures of Quality

Due to the large number of institutions and the lack of capacity and suitability of some of these institutions to participate in external rankings, locally-developed measures of quality such as MyRA, SETARA and MyQUEST can play useful roles. While the methodology of SETARA and MyQUEST can be found in some web-sites, MyRA's methodology and results are not readily available. The methodology of these instruments needs to be reviewed and refined over time since the higher education sector is dynamic and responds to domestic as well as global changes and trends in higher education. In this regard, MOHE is cognizant and has revised SETARA in 2017 (Mustafa, 2020). The latest SETARA exercise, for example, has incorporated an employer index (MOHE, 2022a). This good practice needs to be continued and used for other rating exercises such as MyRA and MyQUEST.

As in the case of other rating exercises, the rating obtained should not be the goal. Instead, the data collected should be used by the institutions to construct strategies for improvements as should be the case for any quality assessment. It should also be made available not just for the institutions involved but for the public and researchers who are interested in analysing the data. Opening the databank of these rating measures to third parties will also remove questions as to whether the data has been inflated. As noted by (Beerkens, 2022), validity, reliability and robustness to manipulation are all important characteristics of good indicators.

Consolidation of private providers

Although the emergence of PrHEIs facilitated different pathways for higher education, the new emphasis on Technical and Vocational Education and Training (TVET) since the Mid-Term Review of the Eleventh Malaysia Plan and in the MEB(HE) itself will provide even more varied opportunities for learning, especially for those cannot afford the fees of PrHEIs. This will impact the enrolment of PrHEIs which can in turn affect their financial sustainability as well. Another factor that may affect enrolment of domestic students is

the reported news that 72.1% of Malaysians do not want to further their studies after secondary school due to belief that furthering their studies will not guarantee better jobs, availability of gig jobs, and preference to be social influencers on social media (Ang, 2022).

In the short-term, recruitment of international students will remain a challenge even as many countries embrace endemicity of the pandemic and borders are increasingly opened. China is the largest source countries for international students in 2019 and 2020. There is a possibility that these students may not want to return, even after China has removed its zero Covid strategy. British Council's survey of about 11000 students studying in the UK showed that 13% did not plan to return while 40% were undecided (World Bank, 2021). Students from other developing countries which are also sources of student supply may be financially constrained by the negative impact of the pandemic on growth and income in these countries.

In the longer-term, as Malaysia is moving towards an aged society (with 14% of its population aged 65 and over) in 2044, and a super-aged society in 2056 (with 20% of its population aged 65 and over), the stock of domestic students will decline while the dependence on international students to sustain the financial viabilities of some PrHEIs will increase. But there is also increasing competition for international students from other countries, making the inflow of these students increasingly difficult to sustain, without substantial improvements in the quality of these institutions. Hence it may not be possible for so many institutions to survive in an increasingly competitive and saturated market.

Consolidating the number of private players by making the renewal of their licenses more stringent, will also help to ease the monitoring and enforcement challenges of these institutions. In this regard, the use of appropriate indicators to assess the performance of PrHEIs can help to weed out underperforming institutions by not renewing their licenses to operate.

5. Conclusion

Higher education policies in Malaysia recognises the importance of improving the quality of higher education to enhance the quality of human capital. Likewise, there is increasing effort made to monitor the quality performance or the outcomes of this sector in terms of a select group of indicators, even though MOHE is aware of the limitations of using single indicators and some of the indicators used, such as the QS WUR system. As the current MEB(HE) is heading towards the end of its plan period and planning for a new plan is likely to take place soon, a review of existing indicators used is necessary for the development of a post-2025 plan as well as for more effective and comprehensive monitoring. It is therefore important to consider carefully, what is being monitored, how the indicators should be constructed and interpreted, less there is a performance paradox.

Certainly, well-constructed performance indicators have important roles to play for public and private institutions. For the public, government financing will be determined in part

by the performance of an institution, while for the private, performance can be used to determine the renewal of licenses. While access is important, quality of access can guide future directions in the development of both public and private institutions as the foundations of good human capital comes from the quality of these institutions.

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Glossary

Acronym	Full Name of Institution
UM	Universiti Malaya
UKM	Universiti Kebangsaan Malaysia
USM	Universiti Sains Malaysia
UPM	Universiti Putra Malaysia
UTM	Universiti Teknologi Malaysia
IIUM	International Islamic University Malaysia
UiTM	Universiti Teknologi MARA
UUM	Universiti Utara Malaysia
UniMAP	Universiti Malaysia Perlis
UTP	Universiti Teknologi Petronas
UNITEN	Universiti Tenaga Nasional
UniKL	Universiti Kuala Lumpur
UTAR	Universiti Tunku Abdul Rahman
Taylor's	Taylor's University
UCSI	UCSI University
MSU	Management & Science University
Sunway	Sunway University

Figure Legends

Figure 1. Employment Rate, 2012-2021

Figure 2. Ranking of UM in the QS Asia University Rankings, 2013-2022

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Figure 5. Share of TRU and SRU, 2016-2021

Tables

Table 1. Number of PrHEIs in Malaysia, 2015-2021

Types of Private HEIs	2015	2016	2017	2018	2019	2020*	2021
University	63	54	53	53	53	51	53
UC	38	32	37	38	37	37	37
Colleges	402	400	380	380	347	338	335
IBC	10	10	10	10	10	10	10
Total	513	496	480	481	447	436	435

Note: UC: University College, IBC: International Branch Campuses, *as at November, 2020

Source: World Bank (2022), updated by authors

Table 2. Targeted Key Performance Indicators (KPIs) in MEB(HE) (2015) and Strategic Plan (2017)

Quality Indicator	MEB(HE)	Strategic Plan
Quality Graduate: Graduate employability	Year 2025 : > 80%	2022 : 82% 2021 : 81% 2020 : 80% 2019 : 79% 2018 : 78%
Quality Research: Number of public universities and government-linked universities rated 5 stars and above for MyRA	None	2022 : 10 2020 : 9 2018 : 8
Quality Research: Quantity, quality and impact factor of paper measured by number of publications	None, but monitored by institutions and MOHE	None, but monitored by institutions and MOHE
Quality Systems	Ranked Top 25 for research output based on U21 Rankings	No additions
Quality Institutions: World University Ranking Number of Malaysian HEIs ranked in QS WUR Top 100; Number of Malaysian HEIs ranked in QS WUR Asia Top 25	2025 : 2 2025: 1	2022 : 2 2021 : 1 2020 : 1 2019 : 1 No additions
Quality Institutions: Number of subjects ranked in QS WUR Top 50 by subject	None	2022 : 20 2021 : 19 2020 : 17 2019 : 15 2018 : 13
Quality Institutions: National HEIs Ranking	None	Target for 2019 Mature : 94% Emerging : 80%

Percentage of public and private universities achieving Tier 4 and above in SETARA Rating		University College : 70%
Percentage of private colleges achieving 4 star and above in MyQUEST Rating	None	Target for 2019 : 40%
Internationalization: Total enrolment of international students in Malaysian higher education system	Year 2025 : 250,000	2022 : 176,000 2021 : 168,000 2020 : 160,000 2019 : 152,000 2018 : 144,000
Internationalization: Percentage of international staff in Malaysian public universities	None	2022 : 10% 2021 : 9% 2020 : 8% 2019 : 7% 2018 : 6%
Internationalization: Percentage of international staff in Malaysian private universities	None	2022 : 6.2% 2021 : 6.05% 2020 : 5.9% 2019 : 5.75% 2018 : 5.5%

Source: Tabulated by authors from MEB(HE) and Strategic Plan

Table 3. Malaysia's ranking in U21 Report, 2014 and 2020

Year	Resources	Environment	Connectivity	Output	Overall
2014	12	26	35	44	28
2020	15	9	31	45	27

Source: 2014 extracted from MOHE (2015); 2020 extracted from Williams & Leahy (2020)

Table 4. The Ranking of Malaysian Universities in the QS World University Rankings, 2013-2023

2013/2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
UM #167	UM #151	UM #146	UM #133	UM #114	UM #87	UM #70	UM #59	UM #65	UM #70
UKM #269	UKM #259	USM #289	UPM #270	UPM #229	UKM #184	UPM #159	UPM #132	UPM #143	UPM #123
USM #355	UTM #294	UTM #303	UTM #288	UKM #230	UPM #202	UKM #160	UKM #141	UKM #144	UKM #129
UTM #355	USM #309	UKM #312	UKM #302	UTM #253	USM #207	USM #165	USM #142	USM #147	USM #143
UPM (411-420)	UPM #376	UPM #331	USM #330	USM #264	UTM #228	UTM #217	UTM #187	UTM #191	UTM #203
IIUM (501-550)	IIUM (501-550)	IIUM (551-600)	IIUM (601-650)	UTP (601-650)	UCSI #481	UCSI #442	Taylor's #379	Taylor's #332	Taylor's #284
	UiTM (651-700)	UiTM (701+)	UTP (601-650)	IIUM (701-750)	UTP (521-530)	UTP #482	UCSI #391	UCSI #347	UCSI #284
			UiTM (701-916)	UUM (701-750)	UUM (601-650)	Taylor's (511-520)	UTP #439	UTP #414	UTP #361
			UUM (701-916)	UiTM (751-800)	Taylor's (601-650)	MSU (541-550)	UUM (531-540)	UUM (511-520)	UUM #481
					IIUM (651-700)	UUM (591-600)	MSU (551-560)	MSU (601-650)	MSU & Sunway (601-650)

Note : Refer to glossary for the full name of institutions.

Source : UniversityRankings.ch (2022)

Table 5. Number of Subject Ranked in QS WUR Top 50

Categories	Subject	University	Ranking
Arts & Humanities	Theology, Divinity and Religious Studies	IIUM	28
		UM	40
	Performing Arts	UCSI	19
Engineering & Technology	Electrical & Electronic Engineering	UM	50
	Petroleum Engineering	UTP	22
		UTM	44
Social sciences & management	Hospitality & Leisure management	Taylor's	16
		UCSI	40
	Library & Information management	UiTM	42
		UM	28

Source : TopUniversities.com (2022)

Table 6. SETARA Rating Results, 2018/2019

Category of HEI	Total HEI	6-STAR		5-STAR		4-STAR		3-STAR		2-STAR		1-STAR	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Mature University	33	8	24%	15	45%	6	18%	4	12%	0	0%	0	0%
Emerging University	50	0	0%	10	20%	15	30%	7	14%	1	2%	0	0%
University College	38	0	0%	5	13%	9	24%	4	11%	1	3%	1	3%

Source : MOHE (2020)

Table 7. MyQUEST Rating Results, 2018/2019

Category of College	Total college	6-STAR	5-STAR	4-STAR	3-STAR	2-STAR	1-STAR	Total obtained 6, 5, and 4 tier
	No.	No.	No.	No.	No.	No.	No.	No.
Large (Enrolment >= 2000 Students)	N/A	2	5	3	1	1	0	10
Medium Enrolment 601-1999 Students	N/A	4	20	19	5	1	0	43
Small (Enrolment <= 600 Students)	N/A	8	29	66	34	9	0	103
Total all categories	380	14	54	88	40	11	0	156 (41%)

Source : MOHE (2020)

Table 8. Ranking of Malaysian Universities in THE World University Ranking, 2015-2022

2015-2016	2016-2017	2018	2019	2020	2021	2022
UTM (401-500)	UKM (601-800)	UM (351-400)	UM (301-350)	UM (301-350)	UM (301-350)	UM (301-350)
UKM (601-800)	UPM (601-800)	UTAR (501-600)	UTAR (501-600)	UTAR (501-600)	UTAR (501-600)	UTP (501-600)
UPM (601-800)	USM (601-800)	UKM (601-800)	UKM (601-800)	UKM (601-800)	UKM (601-800)	UKM (601-800)
USM (601-800)	UTM (601-800)	UPM (601-800)	USM (601-800)	UniMAP (601-800)	UPM (601-800)	UPM (601-800)
UiTM (601-800)	UTP (601-800)	USM (601-800)	UTM (601-800)	UPM (601-800)	USM (601-800)	USM (601-800)
	UiTM (801+)	UTM (601-800)	UTP (601-800)	USM (601-800)	UTM (601-800)	UTM (601-800)
	UUM (801+)	UTP (601-800)	UPM (801-1000)	UTM (601-800)	UTP (601-800)	UUM (601-800)
		UNITEN (801-1000)	UNITEN (801-1000)	UTP (601-800)	UUM (601-800)	UPSI (801-1000)
		UUM (1001+)	UUM (801-1000)	UNITEN (801-1000)	UNITEN (801-1000)	UNITEN (801-1000)
			UNIMAS (1001+)	UUM (801-1000)	UniKL (1001+)	UniMAP (1001-1200)

Note : Data for UM is not available for 2015-16 and 2016-17

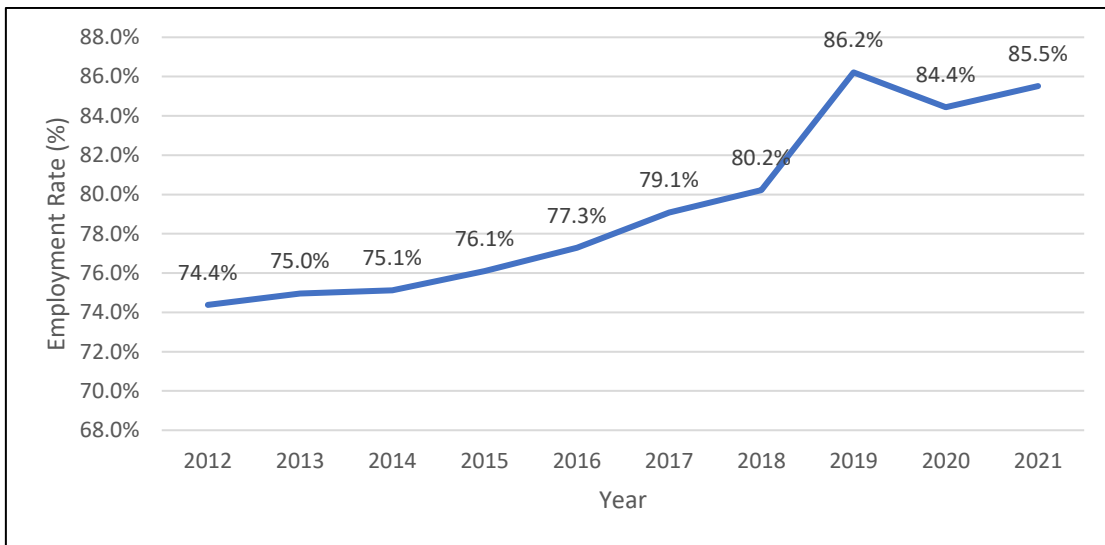
Source : THE (2022)

Table 9. Ranking of RUs in QS and THE, 2015-2022

Year	2018		2019		2020		2021		2022	
	QS	THE	QS	THE	QS	THE	QS	THE	QS	THE
UM	114	351-400	87	301-350	70	301-350	59	301-350	65	301-350
UPM	229	601-800	202	801-1000	159	601-800	132	601-800	143	601-800
UKM	230	601-800	184	601-800	160	601-800	141	601-800	144	601-800
UTM	253	601-800	228	601-800	217	601-800	187	601-800	191	601-800
USM	264	601-800	207	601-800	165	601-800	142	601-800	147	601-800

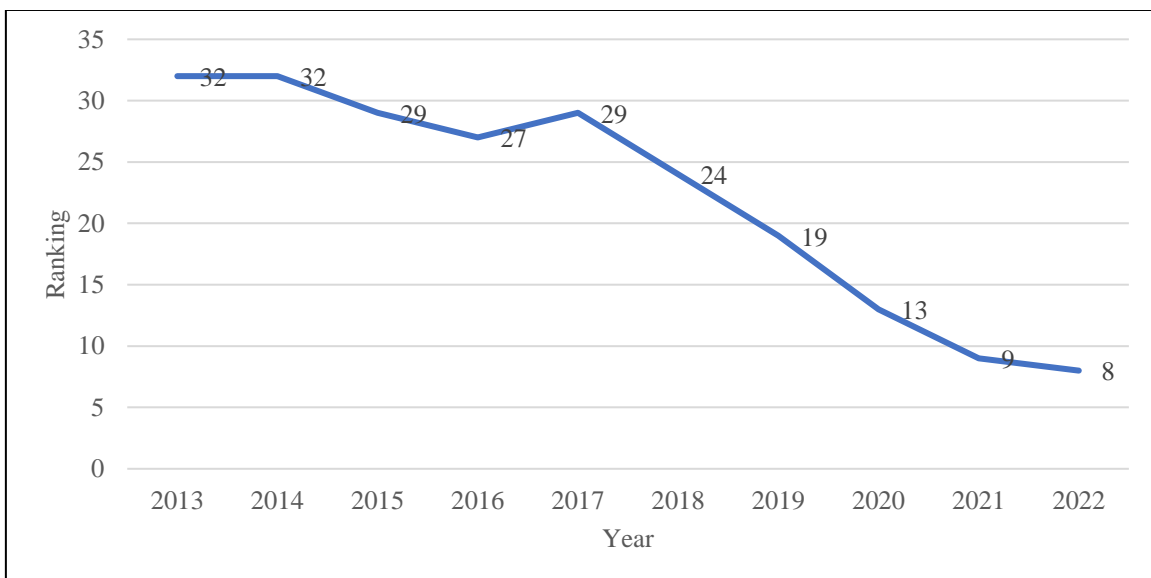
Source : (THE, 2022; UniversityRankings.ch, 2022)

Figure 1. Employment Rate, 2012-2021



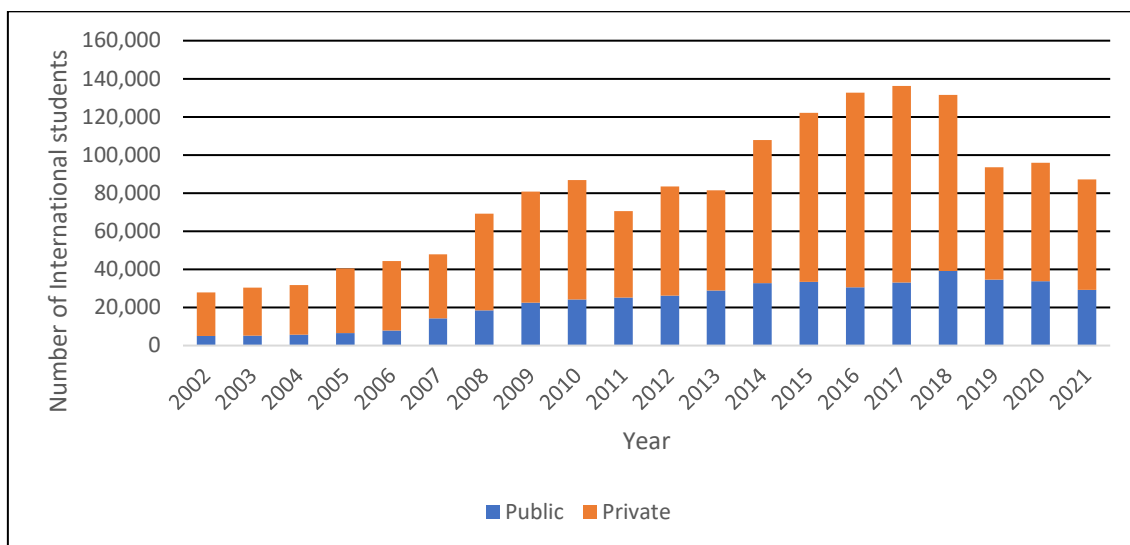
Source: MOHE (2012-2021a)

Figure 2. Ranking of UM in the QS Asia University Rankings, 2013-2022



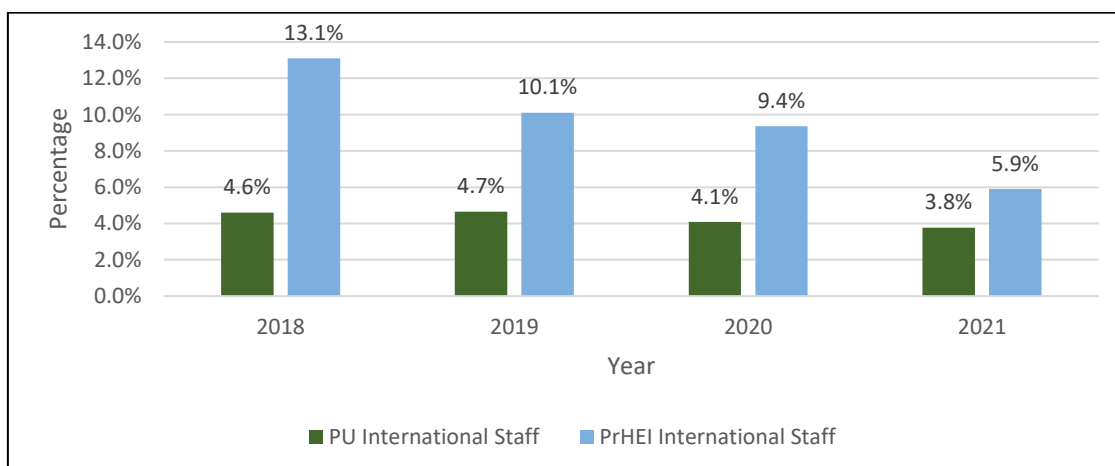
Source : UniversityRankings.ch (2022)

Figure 3. International Student Enrolment in Public and Private HEIs, 2002-2021

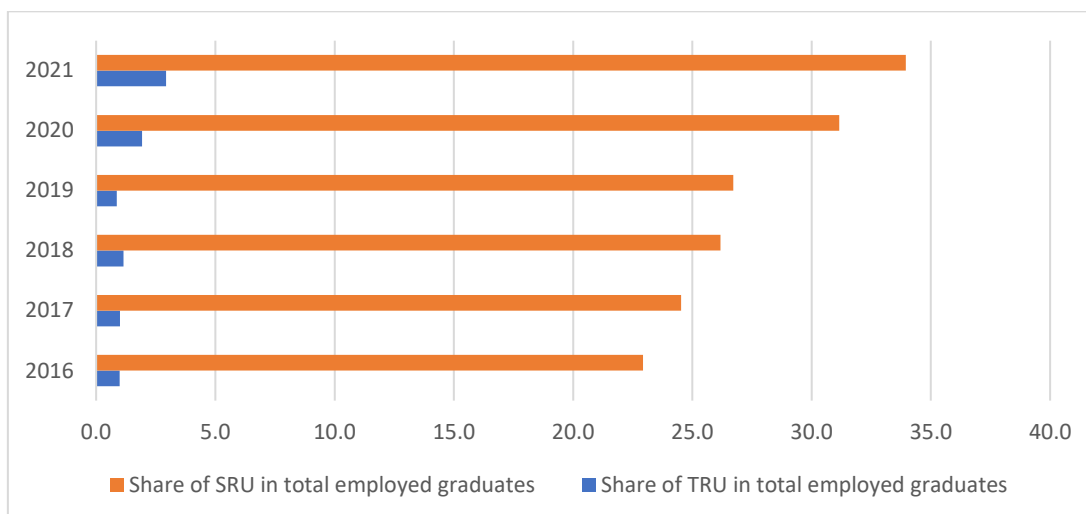


Source : MOHE (2002-2021)

Figure 4. Percentage of International Staff in Public and Private HEIs, 2018-2021



Source : MOHE (2018-2021)

Figure 5. Share of TRU and SRU, 2016-2021

Source: DOS (2022)