International Research Journal of Multidisciplinary Scope (IRJMS), 2025; 6(3):88-101 IRJMS

Original Article | ISSN (O): 2582-631X DOI: 10.47857/irjms.2025.v06i03.04246

Malaysian HEI Performance in Rankings and Entrepreneurship

Ibrahim AM Moussa Omar[1]*, Mohd Saiful Izwaan Saadon[1], Nik Alia Fahada Wan Abdul Rahman[2]

[1]Faculty of Maritime Business and Management, University Malaysia Terengganu, Kuala Terengganu, Terengganu, Malaysia, [2]Faculty Business Economics and Social Development, University Malaysia Terengganu, Kuala Terengganu, Terengganu, Malaysia. *Corresponding Author's Email: drebrahimomar5@gmail.com

Abstract

Rankings and the U21 Ranking of National Higher Education Systems—while also evaluating entrepreneurial outcomes in line with the Malaysia Higher Education Blueprint 2015–2025. The research investigates two main areas: the global standing of Malaysian universities and the impact of entrepreneurship initiatives in HEIs. The findings reveal significant progress in global rankings. The number of Malaysian universities featured in the QS World University Rankings increased from 6 in 2016 to 20 in 2020, with the University of Malaya breaking into the top 100. Malaysia consistently ranked 27th out of 50 countries in the U21 report from 2016 to 2020, positioning third in Southeast Asia. Despite these advancements, challenges remain in research output and citations per faculty. in entrepreneurship, Malaysia has surpassed key performance indicators (KPIs) outlined in the blueprint. The proportion of students engaged in entrepreneurial activities rose from 3% in 2016 to 10.2% in 2019, while the number of graduate entrepreneurs increased from 2.5% to 4.68% over the same period. Moreover, 2,079 academic staff received entrepreneurship training, exceeding the target of 1,500. The study concludes that while Malaysian HEIs have made substantial strides in both global rankings and entrepreneurship, further improvements, particularly in research output and international collaborations, are essential to meet the aspirations of the Higher Education Blueprint by 2025.

Keywords: Entrepreneurship, Global University Performance, Malaysian Higher Education, QS Rankings, U21 Rankings.

Introduction

The rising number of national and international ranking systems for Malaysian Higher Education Institutions (HEIs) underscores the global emphasis on academic excellence and institutional reputation. Universities get involved in these rankings not merely to boost international reputation but to improve internationalization strategies and competitiveness as well (1). The latest figures from QS reveal that universities like University Malaya are currently ranked in the world's top 60 universities, with national rankings showing the remarkable development of Malaysia's higher education systemy (2). This kind of ranking inevitably boosts the reputation and profile of Malaysian HEIs on regional and international scales, thereby influencing their visibility in the media (3). This study evaluates the performance of Malaysian Higher Education Institutions (HEIs) according to their international rankings (U21 and QS) and entrepreneurship education development. It is guided by two hypotheses: (1) the global reputation of Malaysian HEIs has improved based on Blueprint targets, and (2) entrepreneurial engagement among students has increased due to focus-driven reforms. Whereas rankings point out improvement, they also indicate areas for improvement (4). This study increases understanding of how rankings can spur institutional progress and the contribution of entrepreneurship education towards triggering socio-economic growth. The findings are designed to inform future strategic efforts and policy-making in Malaysia's higher education sector.

Global Ranking Systems and Malaysian HELs

Quacquarelli Symonds (QS) World University Rankings

The QS World University Rankings (QSWUR) is a commonly accepted benchmark that ranks higher

(Received 28th February 2025; Accepted 30th June 2025; Published 20th July 2025)

education institutions in terms of six important indicators: academic reputation (40%), employer reputation (10%), faculty-student ratio (20%), citations per faculty (20%), international faculty ratio (5%), and international student ratio (5%).In the 2024 league table, Malaysian universities such as Universiti Malaya (UM) and Universiti Sains Malaysia (USM) showed big jumps, reflecting research-intensive investments and efforts at internationalization (5). Malaysian universities are increasingly leveraging data analytics as a method of predicting and enhancing their QS rankings, with the use of statistical models to predict performance against historical data (6). However, the critics argue that the rankings disproportionately favor Anglophone institutions and do not account for contextual challenges in developing nations, including resource disparities (7).

Universitas 21 (U21) Ranking of National Higher Education Systems

The U21 Ranking, created by Universitas 21, measures 50 national education systems by 24 standardized indicators under four dimensions: resources, environment, connectivity, and output. Malaysia was ranked 28th in the world in the 2023 report, showing strong strengths in "connectivity," more particularly industry partnerships, but it showed weaknesses in "resources" based on comparatively lower public expenditure about OECD countries (8,9). The Ministry of Higher Education of Malaysia's Higher Education Blueprint 2015–2025 places a strong emphasis on research commercialization and graduate employability, which is captured in U21's "output" indicators (Ministry of Higher Education (10). The U21 ranking holds several important implications for researchers, higher education leaders, and policymakers. It provides a metric for comparing the relative strengths and weaknesses of national higher education systems, informing policy decisions in areas of funding, regulation, and strategic planning. A comparison of U21 rankings across different periods shows some important trends, including the development of Asia's higher education systems, increasing internationalization significance, and more focus on innovation and research (11). These classifications can place pressure on institutions of higher education to conform. Universities are often pressured to adapt their strategies to meet ranking criteria, which can lead to short-term results over long-term educational results (12, 13). Pressure can cause unethical actions, with the outcome of data manipulation for the express purpose of improving rankings (14). Conversely, rankings are argued to enhance quality and accountability in higher education systems, fostering a competitive spirit that benefits students and society at large.

Entrepreneurship Education in Malaysian HELs

The Ministry of Higher Education (MOHE) has initiated holistic frameworks like the Entrepreneurship Development Policy and Entrepreneurship Integrated Education (EIE) Action Plan (2021–2025) with the aim of integrating entrepreneurship into academic curricula and the overall university environment (1, 2). Entrepreneurship education is mandatory in public universities, and all higher learning institutions (HEIs) have entrepreneurship centers (3, 4). The programs offered vary from core programs to specialist modules, with some universities more advanced and income-generating entrepreneurship centers. However, the offering of entrepreneurship education programmes (EEPs) is biased, with the top 10 HEIs offering a disproportionate amount of provision (15). There is consensus in the literature for changing entrepreneurship education to emphasize experiential learning, practical skill development, and introducing entrepreneurial personality in curricula (3, 6).

Addressing Curriculum Integration, Job Creation, and Student Impact in Malaysian Entrepreneurship Education

Curriculum Integration: Curriculum Integration: Entrepreneurship education is firmly established to be integrated systematically into the curriculum of Malaysian Higher Education Institutions (HEIs). All Malaysian HEI students, regardless of whatever field of study they pursue, since 2013, have been mandated to enroll in a minimum one course in entrepreneurship, and therefore, entrepreneurship education is a compulsory, core, or elective subject (16).

Job Creation: Malaysian entrepreneur education, especially in TVET and polytechnic programs, aims to produce job creators rather than job seekers. Literature suggests that incorporating entrepreneurship into the curriculum not only enhances the employability, starting salaries, and survival ability in turbulent economies of students

but also enables graduates to form SMEs that significantly contribute to the country's employment and GDP (17,18).

Student Impact: Students learning entrepreneurship in Malaysia—particularly in TVET programs—develop solid intentions and favorable attitudes towards entrepreneurship, viewing entrepreneurship as a means to innovation and economic security. However, only about 5 percent of public university graduates actually do become entrepreneurs, indicating a gap between high entrepreneurial intention and behavior due to reasons like risk aversion and economic uncertainty (4, 19).

Challenges in Developing Entrepreneurship in Malaysian HEIs

Despite such advances, there are still challenges. There is still a necessity for enhancing curricular integration and removing the disparity between education training and actual business issues. Future studies are proposed to investigate how interdisciplinary methods and technology-enabled learning environments can continue to stimulate entrepreneurial results (20).

Among the systemic challenges that persist are: Policy-Implementation Gaps: Private HEIs struggle to connect with national policies, resulting in fragmented curricula and the absence of well-functioning support systems (21).

Lecturer Preparedness: Only 12% of instructors have practical entrepreneurial experience, limiting experiential learning (22).

Cultural Barriers: gender, ethnicity, and familial expectations influence student participation, particularly in rural areas (22).

External and Personal Barriers: Entrepreneurial students are faced with external obstacles—finance gaps, weak networks, and unfriendly environments—and internal obstacles like fear of failure, low confidence, and difficulty in separating scholar and entrepreneurial duties, all which undermine realization of entrepreneurial intentions into viable businesses (23).

Support System Gaps: Private learning institutions particularly are unable to access government youth entrepreneurship development initiatives and do not have adequate support mechanisms such as incubators, mentorship, and access to finance (21).

Institutional Ranking and Entrepreneurial Success

The relationship between institutions' ranking and entrepreneurial success is not straightforward or well-established in the Malaysian context.

Global Ranking Criteria: Global systems (e.g., QS Stars) assess universities' entrepreneurship based on measurable outputs—e.g., startups by students/alumni, incubator space available, and startup survival rates—meaning that those ranked higher tend to have stronger support infrastructure to facilitate entrepreneurial activity (24).

Malaysian Context: There is no direct empirical link between a university's global ranking and entrepreneurial success of graduates in Malaysia: although top-ranked HEIs tend to have more resources and well-developed entrepreneurship centers, the unequal spread of programs and support guarantees ranking does not necessarily translate to better outcomes (21).

Effectiveness of Policies vs. Outcomes: Assessments of Malaysian HEIs register mixed outcomes: while some of the key performance indicators—such as increasing entrepreneurship centers and trainer skills—have been met, the surrounding ecosystem (mentorship, access to funding, industry connections) is still underdeveloped, suggesting that policy presence or institutional prestige at the top must be complemented by effective implementation and enabling infrastructure to generate actual entrepreneurial success (25). This section connects the increasing world rankings of Malaysian universities with their focus on entrepreneurship, highlighting the necessity for ranking systems to incorporate qualitative factors such as community contribution and alumni success in order to enable more holistic evaluation.

Methodology

Service-learning is the integration of community services in courses to augment student learning. It aligns with the Malaysian government's vision, as outlined in Shift 10 of the Higher Education Blueprint (2015-2025), to produce holistic graduates. However, its implementation is beset with stakeholders and local community dynamics issues (26), Additionally, Malaysia ranks 15th in the allocation of higher education resources but only 45th in output, indicating inefficiency in the

translation of resources into education outputs (27). The aim of this study is to evaluate the performance of Malaysian Higher Education Institutions (HEIs) in two dimensions that are related to each other: international ranking performance (QS World University Rankings and Universitas (21) since the introduction of the Malaysia Higher Education Blueprint 2015–2025, and entrepreneurship education and entrepreneurial achievement among students. Two questions inform the study: Has Malaysia's position in world university rankings increased since the introduction of the Blueprint? Have entrepreneurship activities and outcomes among Malaysian HEI students increased since the Blueprint's introduction?

Research Design

A descriptive-exploratory quantitative approach was adopted to address these questions. The study is based on secondary data analysis with specific focus on institutional rankings, entrepreneurship indicators, and alignment with the three strategic shifts outlined in the Higher Education Blueprint. Data were gathered from secondary sources like Ministry of Higher Education (MOHE) reports such as performance reviews, strategic plans, and entrepreneurship tracer studies and university rankings. University Strategic Plans and Institutional Reports of Malaysian Higher Education Institutions (HEIs) provided information on student enrollment, entrepreneurship programs, and institutional plans. The global performance was assessed according to QS World University Rankings and Universitas 21 (U21) data from 2015–2020 to examine changes in Malaysia's global ranking.

Entrepreneurship Indicators: National surveys and MOHE performance reports supplied data on students' and graduates' entrepreneurial activities. Relevant documents were sought out and read in order to glean quantitative information like graduate entrepreneur percentages and number of universities ranked. Data were cross-compared among sources for reliability, accuracy, and consistency.

Data Analysis: Included descriptive statistics, where percentages and frequencies were calculated for main indicators such as university rankings and entrepreneurship rates. Graphical analysis plotted line graphs and bar charts to display trends over time for rankings and entrepreneurial results. Comparative analysis compared pre- and post-Blueprint eras (2015–2020) to determine policy impact. Together, these strategies tracked progress against national higher education and entrepreneurship goals.

Triangulation: Evidence from various sources (MOHE, university reports, and international rankings) was triangulated for the enhancement of the credibility of results and reduction of the threat of bias (28-30).

The research significance is measuring the success of the blueprint against Malaysia's changing higher education environment, namely particularly changes in global rankings and entrepreneurship. The limitations are sampling bias with incomplete data for all 10 shifts in the blueprint and self-report bias with institutional progress reports. Ethical issues of data privacy were noted but resolved through approved use.

Results

Levels of Study in HEELs and types of Higher Education Institutions in Malaysia

This study attempts to achieve its aims by exploring the diverse levels and types of academic programs provided by institutions of higher learning in Malaysia. The Ministry of Higher Education classifies the enrollment of students into ten levels based on the academic degrees granted, as shown in Figure 1. Enrollment is also classified into four groups based on the type of institution, as shown in Figure 2, as follows:

Based on the Academic Degree Awarded to Students

PhD, Master, Postgraduate Diploma (PGDip),Bachelor Degree (BSc/BA),Advanced Diploma(AdvDip),Diploma,Certificate,Professional,Matriculation/Foundation,Others(e.g.,certifications, informal learning).

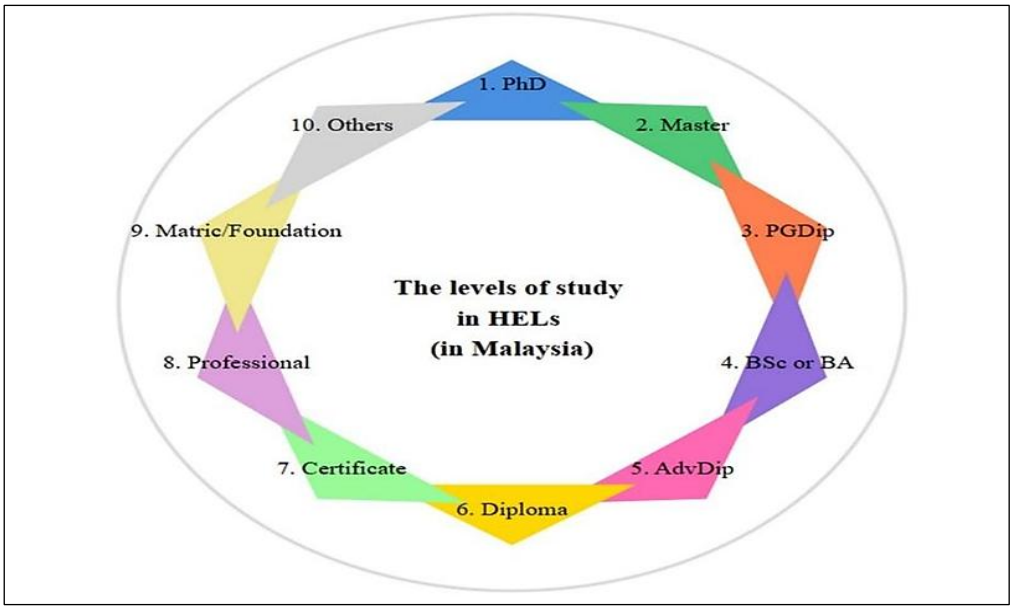

Figure 1: The Level and Degrees of Studies in Higher Education Institutions in Malaysia

The above figure shows the Clear Progression: Effectively reflects the academic progression from Matric/Foundation to PhD. Inclusivity: It encompasses a broad spectrum of credentials, including academic degrees and occupational certificates. Utility: Acts as a valuable reference for policymakers, educators, and students to understand the different pathways available in Malaysian higher education. According to the type of institution in which the student studies Public universities, Private HEIs, Polytechnics, Community colleges.

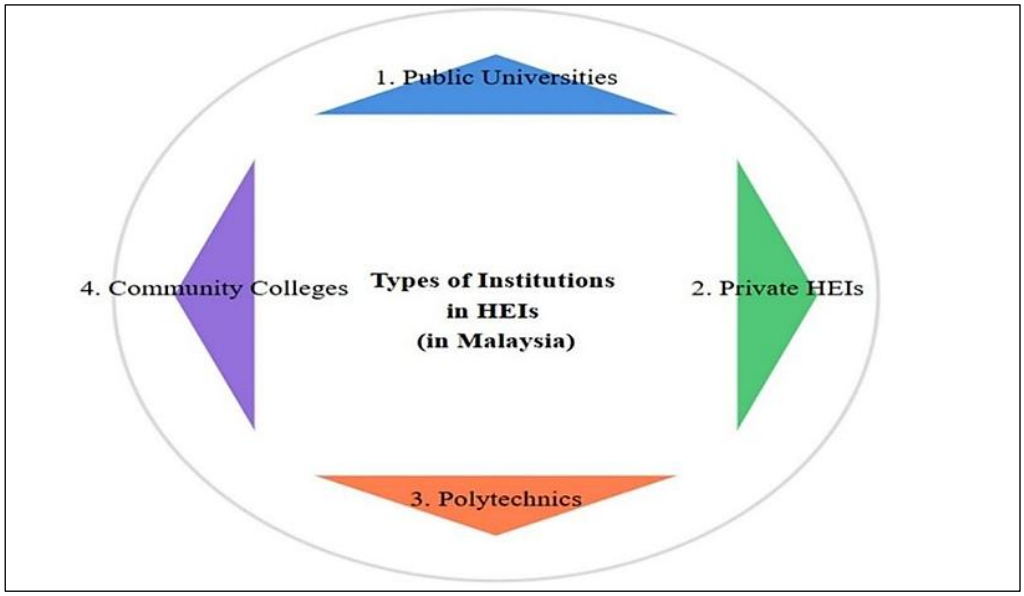

Figure 2: Types of Higher Education Institutions in Malaysia

The above figure differentiates the many existing HEIs in Malaysia into four major categories:
Public universities funded by the government that offer diverse academic programs and are strong in research. Private HEIs are privately funded, are flexible, have diverse courses, and are vocationally oriented. Polytechnics provide vocational and technical education through certificate and diploma courses. Community colleges provide low-cost, local schooling mainly through certificates and diplomas, helping further education or jobs.

Performance on Global Rankings

In this part, we will present the achievements of Malaysian higher education institutions in raising their rank at the Asian level and the scientific level, according to two types of classification, namely,

the QS classification and the U21 classification, which reflect the success of the Ministry of Higher Education in supporting the implementation of the Malaysian Education Plan 2015–2025 (Higher Education). Regarding the ranking among universities in Asia and at the scientific level. This proves or negates the study's first hypothesis, which says: There is an improvement in Malaysia's ranking in the U21 report, QS, as a result of the completion of the first and second waves concerning the 2015–2025 Malaysian Education Blueprint (Higher Education).

Malaysian Institutions in the QS World University

As shown in Figure 3, the number of Malaysian universities in the QS ranking increased from 6 universities in 2016 to 20 universities in 2020, representing 2% of the universities included in the QS World University Rankings 2020. In the same context, this ratio has one in the top 100 (University of Malaya), four in the top 200, and seven in the top 500.

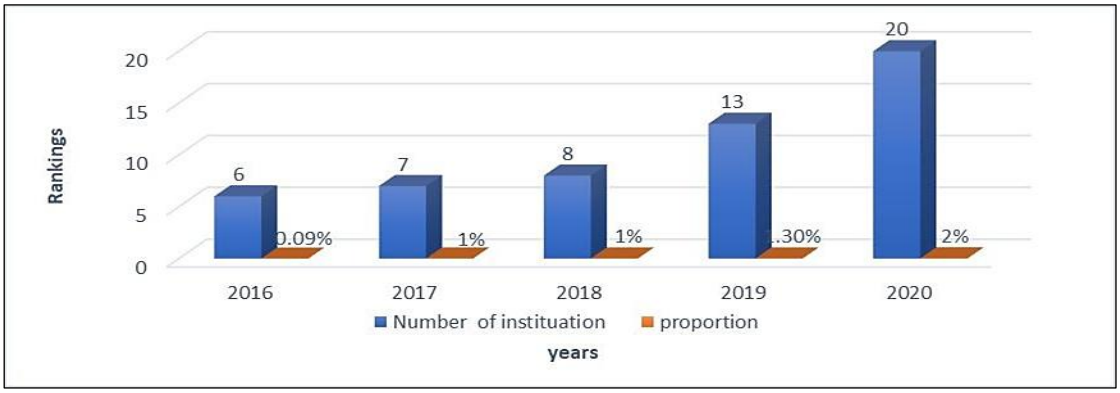

Figure 3: Malaysian Institutions in the top 500 QS World University Rankings against the Global Average

Figure 4 shows considerable improvement in QS World University Rankings of major Malaysian universities between 2016 and 2020. Overall, the performance went from +3% to +44%. Academic reputation went from 10% to +50% better than the world average. Student-faculty ratio improved from +31% to +85%. International student intake and employer reputation also showed considerable improvement at +69% and +73% better than the world average, respectively.

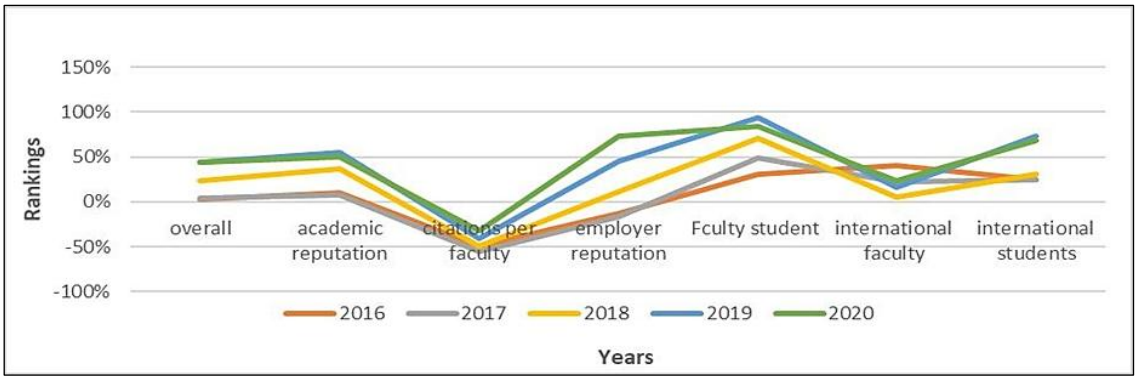

Figure 4: Performance of Malaysian Institutions in the top 500 QS World University Rankings 2016-2020 in Comparison to the Global Average

While Malaysian higher learning institutions have made profound gains in global rankings, they continue to struggle with attracting foreign faculty members and improving research productivity. Citations per academic staff are still lower than global norms, indicating the need for a more intense research ecosystem and more international collaboration. Ongoing investment in academic excellence is imperative in order to maintain momentum in the global higher education arena (31).

Malaysia's Ranking in the U21 Report

Malaysia's Overall Ranking in the U21 Report 2014

Malaysia stands at 28 out of 50 in resource position, reflecting a high government

commitment to higher education, as evident in Figure 5. When income is adjusted for, it has the top resource commitment according to the U21 report. However, it is 44 when it comes to output, such as research productivity, institutional rankings, and graduate performance. The key challenge lies in enhancing output to reflect the enormous investment put in.

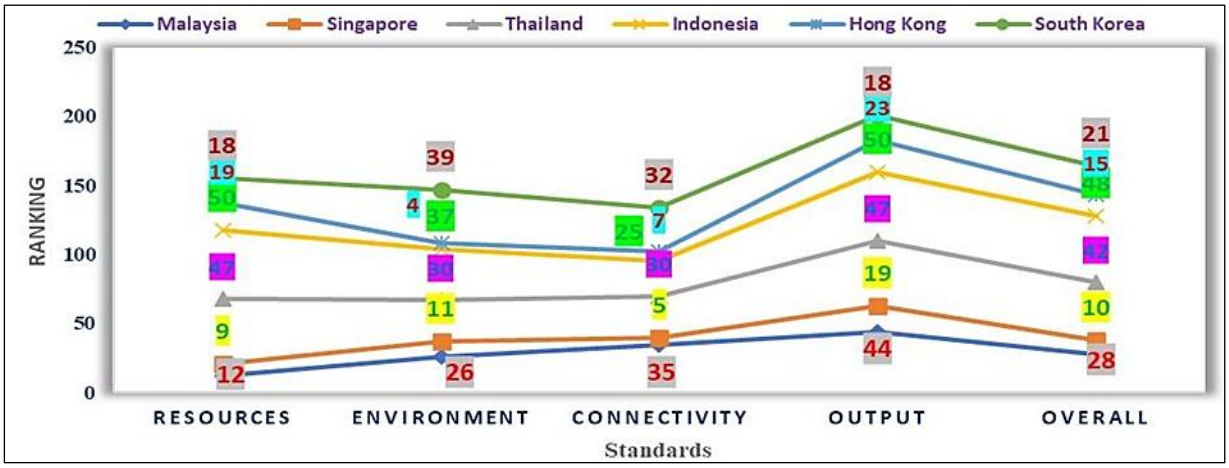

Figure 5: Malaysia's Overall Ranking in the U21 Report 2014

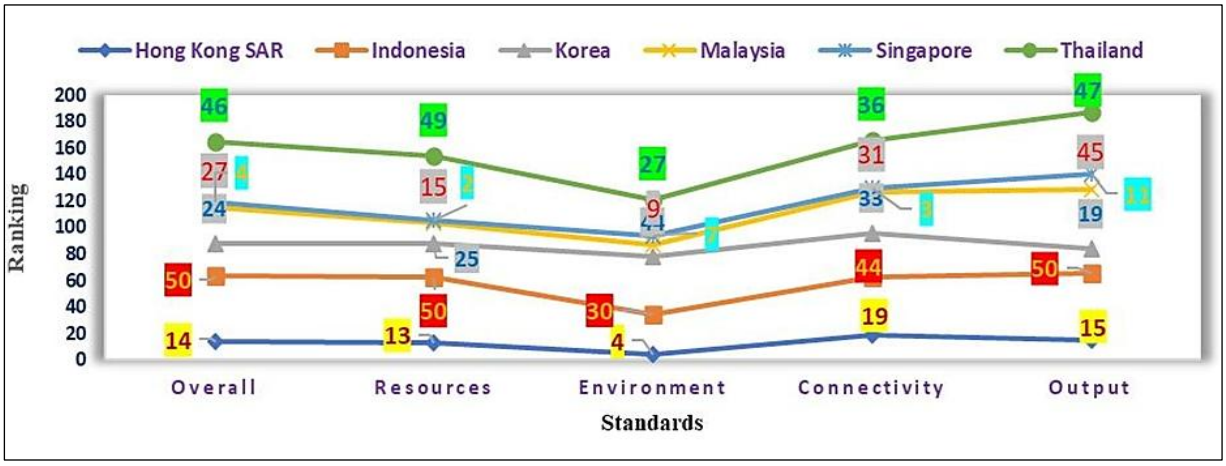

Figure 6: Malaysia's Overall Ranking in the 2020 U21 Report

Malaysia's Ranking in the 2020 U21 Report

As illustrated in Figure 6, Malaysia is placed at 27 among 50 nations overall and third in Southeast Asia in the U21 report. It is ranked 9th for environment, reflecting good advances in its educational environment. But a low output ranking of 45th points to persistent difficulties in converting this advance into tangible outcomes.

Malaysia's Overall Ranking in the U21 Report (2016–2020)

As shown in Figure 7, Malaysia ranked 28th out of the 50 countries covered by the report in 2019 and 27th in 2016 and 2020. This reflects the convergence of the contribution ratios of the five components based on the report over the past three years. On the other hand, Malaysia ranked 25th in 2017, reflecting progress in one or more of the five components, which the study will explain later.

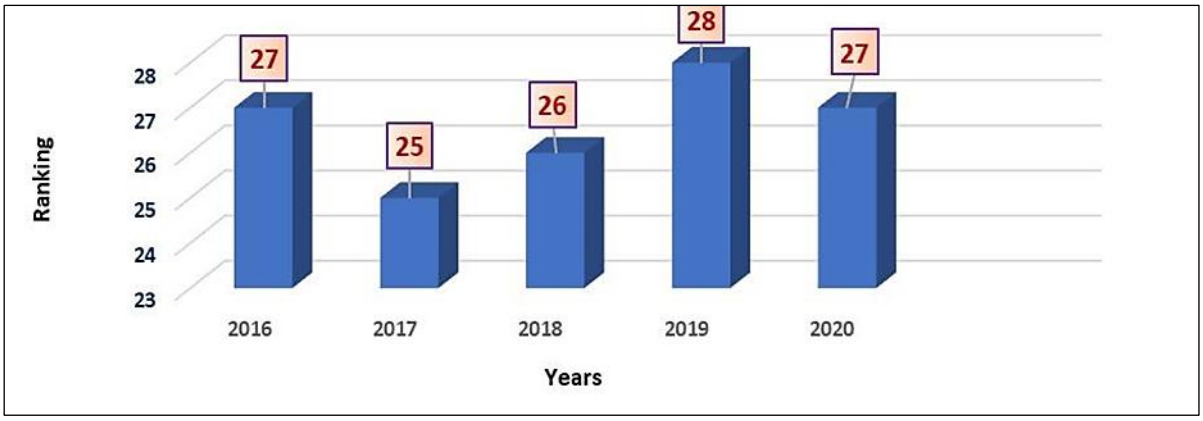

Figure 7: Malaysia's Overall Ranking in the U21 report (2016 - 2020)

Malaysia's ranking of between 27th and 28th in the world on education is a sign of stability. This indicates similarity in country's education policies, practices and outcomes over time. This also means its rankings for Malaysia for the year were balanced from one another as well as it can also indicate their weighting based on these five elements scores being considered afterwards for all three years mentioned above. This means that U21 has provided Malaysia's a pass mark on different aspects thus not having ups and downs. Yet, there was some progress from Malaysia's position to number twenty-five in a span of one year alone (2017) reflecting some developments on any of those five components where remedial actions were being taken in this one year alone like targeted programs, reforms or investments aimed at enhancing specific dimensions of an education system. In general, the U21 report on Malaysia's rankings reflects areas of stability in education and other areas where improvements can be made. These findings offer a chance for evaluation and planning to enhance Malaysia's global competitiveness and address weaknesses or opportunities that have been recognized.

Ranking for some of the Association of Southeast Asian Nations (ASEAN) countries in the U21 report (2016-2020)

As shown in Figure 8, Malaysia ranked third among the ASEAN countries and 28th globally in 2019, showing excellent regional and growing global competitiveness. This is due to favorable education policies and investments. Thailand ranked fourth among the six nations compared, while Indonesia ranked last in the region and 50th globally. In a nutshell, this ranking is almost a snapshot of how ASAEN stands compared with the rest of the world. Such metrics would no doubt serve policymakers, educators, and other key stakeholders in understanding what they did right and where they went wrong, setting ways forward as well as areas needing partnerships for growth within education across these nations.

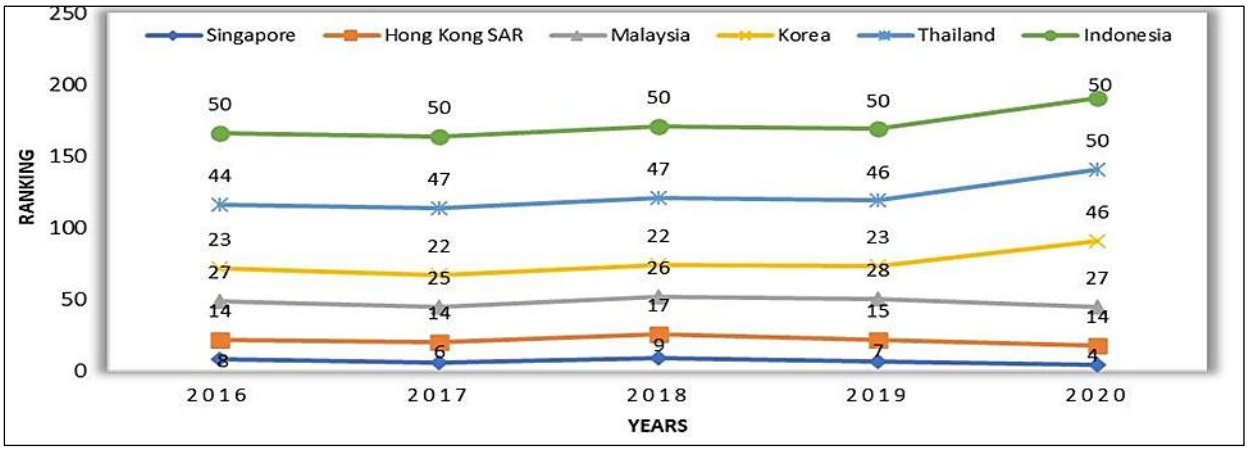

Figure 8: Ranking for Some ASAEN Countries in the U21 Report (2016-2020)

Entrepreneurship

The Number of Programs and Participants

As revealed in Figure 9, the enrollment of students in MOHE-related programs in HEIs decreased from 30,041 in 2016 to 15,221 in 2020, while the staff increased remarkably from 205 in 2019 to 2,820 in 2020. The number of programs changed marginally from 68 in 2019. On the other hand, 2017 recorded the least in offering with 44 programs. The intake in MOHE-related programs fell precipitously by 49%, from 30,041 to 15,221, most likely due to external shocks like the COVID-19 pandemic disrupting experiential learning. Despite good policy, inconsistent execution of programs and variable institutional capacity affected results (32). Awareness is raised by short-term programs but long-term entrepreneurial development demands sustained curriculum integration (33).

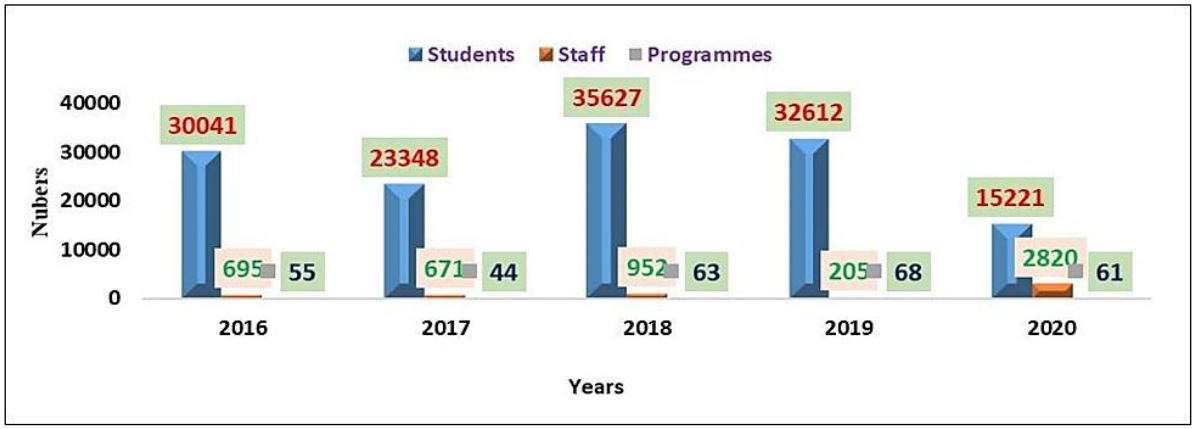

Figure 9: Number of Students and Staff in MOHE-Related Programmes at HEIs from 2016 to 2020

Key Performance Indicator (KPI)

Achievements among HEIs until 2019

In this part, we will present the achievements of four key performance indicators for all higher education institutions in the field of entrepreneurship from 2016 to 2019. This reflects the success of the Ministry of Higher Education in supporting the implementation of the Malaysian Education Blueprint 2015-2025 (Higher Education), in particular, the first shift it has made regarding entrepreneurship through entrepreneurship programmes conducted in higher education institutions at the national level, which proves or negates the first hypothesis of the study, which says: There is an increase in entrepreneurship among students as a result of the completion of the first and second waves in the Malaysian Education Blueprint 2015-2025 (Higher Education).

The Ministry of Higher Education is guided by two strategies from the 2015–2025 Malaysian Education Outline (Higher Education). These strategies focus on developing the entrepreneurship curriculum and enhancing higher education institutions' teaching and learning environments. Four types of indicators emerge from those two strategies, which are as follows:

Entrepreneurship Awareness among Students (KPL1)

Figure 10, illustrates the following: increasing the awareness of entrepreneurship among students from 60% in 2016 to 96.2% in 2019, surpassing the targets in the last three years.

Graduate Entrepreneurs (KPL2)

As we see in Figure 11, the number of graduate entrepreneurs has risen from 2.5%, which is equivalent to 3,756 in 2016, to 4.68%, which is equal to 7,148 students in 2019, which surpasses the target of 6,270 (4% of total graduates this year). Therefore, the percentage of graduate entrepreneurs exceeds the yearly target and has risen every year until 2019.

Figure 10: Percentage of Entrepreneurship Awareness among Students Targeted in HIEs from 2016 to 2020

Figure 11: Percentage of Graduate Businessmen Achieved to Targeted in HIEs from 2016 to 2020

Figure 12: Percentage of Student Business Achieved to Target at HIEs from 2016 to 2020

Student Business (KPL3)

As shown in Figure 12, the proportion of students doing business while studying has grown from 3% in 2016 to a sharp increase of 10.20% in 2019. The figure also illustrates that the percentage of student business has been steadily rising and has achieved the targets set for years 2016 and 2019.

Educators with Entrepreneurship Expertise (KPL4)

As we see in Figure 13, the percentage of academics who have received training in entrepreneurship has reached 2,079 as of 2019, well above the 1,500 target. At the same time, KPI 4, "Educator with Entrepreneurship Expertise," has shown excellent achievements (significantly beyond targets).

Figure 13: Number of Educators with Experience in Entrepreneurship Achieved the Target in HIEs from 2016 to 2020

Discussion

Regarding performance on global rankings, Graph 4.1 illustrates that the QS ranking increased from six universities in 2016 to twenty universities in 2020, representing 2% of the universities included in the 2020 QS World University Rankings. In the same context, this ratio includes 1 in the top 100 (University of Malaya), 4 in the top 200, and 7 in the top 500. Malaysia's Higher Education Blueprint, concerning the Ranking of Universities in International Reports, clarified that the system aspires to the following: 25 In QS research output ranking, 1 university is in the Asian Top 25, 2 universities are in the Global Top 100, and 4 universities are in the Global Top 200 (34). Add to that. By comparing the ranks that the education system aspired to in the Blueprint, the ranks referred to in the report are very close. Knowing there is still a third wave (five years) ending in 2025? This reflects the superiority of higher education institutions over the system's aspirations in the Blueprint. Regarding the ranking of U21, as shown in graph 4.4, Malaysia ranks 27th in all 50 countries and third out of six in Southeast Asia. Graph 4.5 illustrates that Malaysia ranked 28th out of the 50 countries covered by the report in 2019 and 27th in 2016 and 2020. This reflects the convergence of the contribution ratios of the five components based on the report in the three years. On the other hand, Malaysia ranked 25th in 2017. These results reflect a fluctuation in the ranks of Malaysian universities, where she advanced from 2014 by one rank. From rank 28 to rank 27 in 2020. According to the Higher Education Blueprint, the system aspires to rank 25. There may still be a full wave (five years) in the remaining years of the blueprint period. Thus, the study's results support the second hypothesis (H_2). As shown in graph 4.6, the six countries were chosen based on the Malaysian Educational Plan's selection of them in its final report for 2015 under the name of the Asian Neighboring Countries. Malaysia occupies 3rd place.

For entrepreneurship, Figure10 illustrates the increased awareness of entrepreneurship among students, exceeding the target percentage in 2017, 2018, and 2019. Whereby, from 2016 to 2019, the targeted percentages are 60%, 70%, 80%, and 90%, respectively (35). The incorporation of mandatory entrepreneurship courses within universities has promoted entrepreneurial mindset as a core graduate attribute. The move was in accordance with the Malaysian Higher Education Blueprint 2015–2025, which called for its incorporation. Empirical research shows that obligatory entrepreneurship education, particularly if enhanced by experiential learning experiences, enhances student motivation and awareness (36). Moreover, institutional change has been initiated through performance-based funding, thereby encouraging awareness programs and marketing (37). While future emphasis is necessary on mentorship and alumni engagement.

For the graduate entrepreneur, Figure 11 depicts that for most of the five years in the first and second waves of the Malaysian Higher Education Blueprint, the number of graduate entrepreneurs is above the target ratios. The target percentage was from 2.5 percent in 2016, 3 percent in 2017, 3.5 percent in 2018, 4 percent in 2019, and 5 percent in 2020, respectively (37). This achievement is indicative of the achievement of the Malaysian Higher Education Blueprint (2015–

2025) in mainstreaming entrepreneurship into higher education institutions (HEIs). Initiatives such as the Entrepreneurship Action Plan for HEIs (2021–2025) and the National Entrepreneurship Policy 2030 have further reinforced this direction. Research indicates that Malaysian students exhibit a high entrepreneurial orientation when they are provided with formal support. The increased number of graduate entrepreneurs indicates the concrete impact of institutional initiatives. These results are confirmed by empirical research (35). In the same context, Figure 12 depicts that the percentage of students doing business while pursuing studies has increased from 3% in 2016 to a sharp increase of 10.20% in 2019. It attempted to get closer to the target percentages of the Malaysian blueprint for higher education in the first and second waves. The target percentages in the years 2016 to 2020 were: 3%, 6%, 9%, 10%, and 15%, respectively. There is evidence for entrepreneurship education and the support infrastructure that helps students develop student-driven business ideas. Institutional support in the offerings is paramount, with the learning environment playing a significant role in entrepreneurial intentions (37). Formalized resources in the form of startup boot camps, incubators, and mentorship programs considerably influence outcomes. Experiential learning pedagogies—encompassing real business projects, internships, and competitions—serve a vital role in connecting students from intention to action (36). Collectively, the findings confirm that formal entrepreneurial ecosystems in universities inspire student startups.

As we can see in Figure 13, until 2019, the percentage of academics who received training in entrepreneurship reached 2,079, which exceeded the target number of 1,500 trainees. This achievement aligns with the Malaysia Education Blueprint 2015–2025, which gives priority to the development of entrepreneurial, well-balanced graduates. This is also aligned with world best practices in education. Finland and the Netherlands, for example, have successfully infused entrepreneurship by equipping teachers in all fields to teach such curricula (37). Consequently, Malaysia's groundbreaking policy enables it to catch up in remaining consistent with the globalized world. It has been verified that institutional outcomes—such as the establishment of start-ups and innovation diffusion—were much more robust under conditions of emphasis on teacher capacity building (20, 23). The finding substantiates the soundness of Malaysia's strategy and indicates the existence of a positive feedback cycle: trained educators → improved pupil achievements → heightened institutional effect.

The study's contributions, methodologically, the study contributes in different ways; the first is by using the exploratory and descriptive study methods and the comparative approach sometimes to investigate the extent of progress made in two variables. Specifically, global rankings - entrepreneurship. This would contribute to determining the extent to which the blueprint is going according to what is expected. Therefore, in the third and final stage, any negative aspects of the indicators under study are avoided.

How Malaysian HEIs can Concurrently Achieve Distinction in Rankings while Fostering Entrepreneurial Ecosystems

Malaysian HEIs can both excel in international rankings and entrepreneurship by connecting curriculum innovation with institutional KPIs, making education in entrepreneurship interdisciplinary, and creating strategic industry partnerships (3, 24). Entrepreneurial ecosystems are supported if universities invest in incubators, mentorship programs, and outcomes-based education (37). A-class institutions like Universiti Malaya have demonstrated that ranking entrepreneurial contribution and excellence are complementary (19). These dual outputs are complemented by policy levers like the Entrepreneurship Action Plan (36). Such coordinated strategies ensure long-term academic ranking while developing job creators.

Conclusion

The results of this study are limited by the indicators set by the Malaysian Plan for Higher Education. Thus, their ability to show the 'actual' results of entrepreneurship education among Malaysian students is weak because the blueprint was limited to some indicators that focused entirely on awareness. Graduation and the practice of entrepreneurship during the study with the number of experts in this field, the results were already positive and exceeded expectations. However, this may require a more in-depth analysis that includes observing the participants before, during, and after completing their studies.

And the effect of entrepreneurship education on individuals who already have their businesses, comparing them to those who did not receive this type of education but engaged in the same activities.

As for the classification variable, according to the previously mentioned results, Malaysian higher education organizations are close to achieving the general goals, and there is still one complete wave (5 years) remaining. However, the blueprint was limited to only two types of international university rankings, although there are other, more accurate classifications such as the Time ranking and others.

Abbreviations

HEI: Higher Education Institution, KPI: Key Performance Indicator, MOHE: Ministry of Higher Education, QS: Quacquarelli Symonds, UM: University Malaya, USM: University Sains Malaysia, UST: University Malaysia of Terengganu (UMT).

Acknowledgment

The authors wish to thank the Ministry of Higher Education (MOHE) Malaysia and the University Malaysia of Terengganu (UMT) with appreciation and gratitude for providing the study data. Gratitude is also extended to the Malaysian Higher Education Institutions (HEIs) staff, colleagues, for their advice and encouragement during this study.

Author Contributions

All authors contributed equally.

Conflict of Interest

The authors declare no conflicts of interest related to this study.

Ethics Approval

This study did not require formal ethical approval as it relied exclusively on publicly available data and institutional reports, in compliance with ethical guidelines for secondary data analysis.

Funding

The authors did not receive support from any organization for the submitted work.

References

1. Hou YW, Jacob WJ. What contributes more to the ranking of higher education institutions? A comparison of three world university rankings. Int Educ J Comp Perspect. 2017;16(4):29-46.
2. Universiti Malaya. Universiti Malaya rises to top 60 in the QS World University Rankings 2025. Faculty of Languages and Linguistics, Universiti Malaya. https://fll.um.edu.my/news/universiti-malaya-rises-to-top-60-in-the-qs-world-university-rankings-2025
3. Izharuddin M, Hadi FS, Lestyorini MC. Evaluation of World University Rankings of Southeast Asia HEIs Image. Wiga J Penelit Ilmu Ekon. 2023;13(1):38-45.
4. Khairuddin ZN, Sauh SM, Asmaai M, Mohd Sauh S, et al. Entrepreneurship Education at Higher Learning Institutions (HLI): Policy Mismatch and Recommendations. Malays J Bus Econ Manag. 2023;2(1):27-33.
5. QS Top Universities. QS World University Rankings 2024 Methodology. 2024. https://www.topuniversities.com/university-rankings-articles/world-university-rankings/qs-world-university-rankings-methodology
6. Estrada-Real AC, Cantu-Ortiz FJ. A data analytics approach for university competitiveness: the QS world university rankings. Int J Interact Des Manuf. 2022;16(3):871-91.
7. Hazelkornis E. Global rankings and the geopolitics of higher education. 2017. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Global+rankings+and+the+geopolitics+of+higher+education.+2017
8. Universitas 21. U21 Ranking of National Higher Education Systems 2023. https://universitas21.com/rankings
9. University of Melbourne. U21 Ranking of National Higher Education Systems 2020. https://universitas21.com/what-we-do/u21-rankings/u21-ranking-national-higher-education-systems-2020
10. Ministry of Higher Education Malaysia. Higher Education Blueprint 2015–2025: Mid-Term Review Report. Putrajaya: MOHE; 2023. https://www.akademisains.gov.my/ar19/ru/
11. Cantwell B, Lee Y. The changing global landscape of higher education. ASHE High Educ Rep. 2016;42(3):1-128.
12. Moustafa K. University rankings: Time to reconsider. Bioimpacts. 2024;15:30290.
13. Vidal J, Ferreira C. Universities under pressure: the impact of international university rankings. J New Approaches Educ Res. 2020;9(2):181-93.
14. Mussard M, James AP. Engineering the global university rankings: gold standards, limitations and implications. IEEE Access. 2018;6:6765-76.
15. Ministry of Higher Education Malaysia. MOHE Guide to Entrepreneurship Integrated Education (EIE). Department of Higher Education; 2020. https://cadelead.upm.edu.my/upload/dokumen/20221223153043eBookBKA_l_MOHE_Guide_To_Entrepreneurship_Integrated_Education_(EIE)-compressed.pdf
16. Sulaiman S, Yusof SNLM, Amaran MA. State of Entrepreneurship Education in Malaysia: A Critical Review. J Econ Sustain. 2024;6(2):84-103.
17. Rahim HL, Kadir MABA, Abidin ZZ, et al. Entrepreneurship Education in Malaysia: A Critical Review. J Technol Manag Bus. 2015;2(2):1-11.
18. Bin Yusoff MNH, Zainol FA, Bin Ibrahim MD. Entrepreneurship Education in Malaysia's Public Institutions of Higher Learning. Int Educ Stud.

2015;8(1):17-28.
19. Ahmad NL, Fazil NFM, Yusof R, Jamaluddin NS, Yahaya R. The influence of accounting students' personality traits on their entrepreneurship intention. Int J Eval Res Educ. 2024;13(5):2936-43.
20. Othman NH, Othman NH, Juhdi NH. Does Entrepreneurship Education Affect Pre-start-up Behavior in Malaysia. Front Psychol. 2022;13:738729.
21. Wan Nurul Hasinah Wan Kamarudin, Wan Nor Bayah Wan Kamarudin, Mohamad Norhaya Hanum, Samsudin Azlina, Nik Mohamad Zulfadli Nik Mohd Fahmi. Entrepreneurship Education in Technical and Vocational Training (TVET) in Malaysia: Students' Experiences and Perspectives. International Journal of Social Science Research. 2025;13(1):249–266. https://doi.org/10.5296/ijssr.v13i1.22665
22. Farid S, Abdul Rahman S. Identifying the Challenges of Involvement in Entrepreneurship Activities among Undergraduates. Int J Contemp Educ Res. 2022;7(2):246-57.
23. O'Callaghan C. Rating universities on entrepreneurship: QS Stars. TopUniversities. https://www.topuniversities.com/qs-stars/qs-stars/rating-universities-entrepreneurship-qs-stars
24. Shamsudin SFFB, Al Mamun A, Nawi NBC, Nasir NABM, Zakaria MN. Policies and practices for entrepreneurial education: The Malaysian experience. J Dev Areas. 2016;50(5):307-16.
25. Musa N, Ibrahim DHA, Abdullah J, et al. A methodology for implementation of service learning in higher education: A case study from UNIMAS. J Telecommun Electron Comput Eng. 2017;9(2–10):101-9.
26. Da Wan C, Azman N, Sirat M. Productivity of Malaysian universities: Boon or bane? The Performance of Asian Higher Education: Understanding Productivity Across Institutions and Systems. Routledge; 2024. p.114–137.
27. In S, Least P. Modeling of Entrepreneurial Intention Among Public University Students in Malaysia Using Partial Least Square-Structural. 2025;7(1):54-75.
28. Rengiah P, Sentosa I. Effectiveness of entrepreneurship education in developing entrepreneurial intention among Malaysian university students. Educ J. 2016;5(4):53-61.
29. Nur S, Mohd L, Amaran MA. Comparison of Entrepreneurship Programs in Public Universities. 2024;6(1):84-103.
30. Tham SY, Chong PY. Transforming Malaysia's Higher Education: Policies and Progress. Asian Econ Policy Rev. 2023;18(2):243-60.
31. Looi KH, Maritz A. Government institutions and entrepreneurship education in Malaysia. Educ Train. https://doi.org/10.1108/ET-07-2020-0217
32. Feranita F, Mouawad R, Amin M, Leong LW, Rathakrishnan T. Unveiling the Role of Entrepreneurial Education in Preparing the Next Generation of Entrepreneurs in Malaysia. In: Ratten V, editor. Strategic Entrepreneurial Ecosystems and Business Model Innovation. Emerald Publishing; 2022. p.17–30. https://doi.org/10.1108/978-1-80382-137-520221002
33. Ministry of Higher Education Malaysia. Entrepreneurship Action Plan Higher Education Institutions EAP-HEIs 2021–2025. https://www.ukm.my/cesmed/news/pelan-tindakan-keusahawanan-2021-2025/
34. Ahmad SZ, Buchanan RF. Entrepreneurship education in Malaysian universities. Tert Educ Manag. 2015;21(4):349-66.
35. Zhiyi R, Rahim HL, Aziz NA. Strategic Approaches to Entrepreneurship Education in Malaysia: Policy and Practice. Int J Acad Res Bus Soc Sci. 2024;14(7):439-54.
36. Ministry of Education Malaysia. Malaysia Education Blueprint 2015–2025 (Higher Education). 2015. https://www.um.edu.my/docs/um-magazine/4-executive-summary-pppm-2015-2025.pdf
37. Zainal P. Entrepreneurial Intention among Undergraduate Students: A Case Study on a Malaysian University. Int J Adv Appl Sci. 2020;7(9):135–43.