
THE ROLE OF UNIVERSITAS TERBUKA IN INCREASING THE GROSS ENROLMENT RATIO (GER) OF HIGHER EDUCATION IN INDONESIA: A COMPARATIVE STUDY OF OPEN UNIVERSITIES IN MALAYSIA, SINGAPORE, AND THAILAND

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Abstract

This study examines the role of Universitas Terbuka (UT) in increasing the Gross Enrolment Ratio (GER) of higher education in Indonesia, identifies supporting and inhibiting factors, and compares the strategies of open universities in Malaysia, Singapore, and Thailand to formulate recommendations for UT Indonesia. The research uses a descriptive qualitative approach, with primary data collected through observations and in-depth interviews with UT administrators, lecturers, and stakeholders, complemented by comparative analysis of international practices. Data were analysed using qualitative techniques, including data reduction, data display, and conclusion drawing. The results indicate that UT has contributed significantly to the national GER, with an average contribution of 16.12% and an increase to 19.19% in 2024. This contribution is supported by UT's status as a public university, strong accreditation, government policy support, and flexible learning systems that expand access for remote communities and working adults. Comparative findings show that open universities in the selected countries emphasize inclusive education, digital learning, policy integration, and international collaboration. Based on these findings, UT Indonesia needs to strengthen digital transformation, expand blended learning, and enhance internationalization to improve competitiveness and support national human resource development.

Keywords: Gross Enrolment Ratio (GER), Comparative Study, Distance Learning

INTRODUCTION

The Gross Enrolment Ratio (GER) in higher education is a fundamental indicator for assessing accessibility and equity in educational opportunities within a country. Although Indonesia's higher education GER has increased over the years, it remains lower compared to other Southeast Asian countries. Structural challenges—such as limited access in remote regions, relatively high higher education costs, and the lack of flexibility in formal education systems—continue to constrain optimal GER growth. In the context of sustainable development, improving GER holds a strategic position as it is one of the prerequisites for achieving the SDGs, particularly the goal of expanding access to quality education.

Academic studies show that GER not only reflects the level of public participation in a specific educational tier but also indicates the effectiveness of educational policies in enhancing the population's absorption capacity for educational services (Subandriyo, Ikhsan & Muchlishoh, 2019; Rutfiana & Hayati, 2020). A low GER, as highlighted by Mukhaiyar et al. (2022), demonstrates limited access and unequal learning opportunities, especially at the upper secondary and higher education levels. Data from Statistics Indonesia show that the country's higher education GER remains below 30%, significantly lagging behind both developed nations and neighbouring countries such as Malaysia, Thailand, and Singapore. The lack of granular data, particularly at the district or municipal level, further challenges evidence-based policymaking.

Experiences from ASEAN countries show that open universities play a key role in significantly increasing GER. Malaysia has successfully implemented an inclusive open education model through adaptive recruitment strategies, multi-tiered financial aid schemes, and cross-sector collaboration. Thailand stands out for its systemic approach grounded in blended learning, digital transformation, and strong government policy support to accelerate educational access. Meanwhile, Singapore—through OU-SIM—has developed six strategic pillars including global partnerships, flexible learning, industry-oriented curricula, expansion into international markets, comprehensive student services, and strengthened institutional branding as mechanisms to boost higher education participation.

In the Indonesian context, Universitas Terbuka (UT) occupies a strategic position as the only public university offering distance learning designed to expand educational access nationwide, including in frontier, outermost, and underdeveloped regions. Flexible learning modalities, more affordable tuition, and extensive service outreach make UT an essential instrument in supporting the government's efforts to improve the higher education GER. However, deeper understanding is still needed regarding UT's actual contribution, the supporting and inhibiting factors that influence its performance, and the extent to which UT may adopt best practices from other ASEAN countries.

Based on these needs, this study aims to analyse the role of Universitas Terbuka in increasing Indonesia's higher education GER, identify the factors that influence its performance, and conduct a comparative study of open university models in Malaysia, Singapore, and Thailand. This research also formulates strategic recommendations that UT can implement to enhance its competitiveness, effectiveness, and accessibility in delivering distance education in Indonesia. Thus, this study is expected to provide empirical contributions to the literature on higher education access and serve as a reference for

policymakers and educational institutions in strengthening educational equity and national human resource development.

REVIEW OF LITERATURE

Gross Enrolment Ratio (GER) in Indonesian Higher Education

The Gross Enrolment Ratio (GER) is a key indicator used to measure the level of accessibility and participation of school-age populations within an education system. The higher education GER reflects the proportion of college-age individuals (19–23 years old) who are enrolled in higher education, regardless of age appropriateness for that level (Ikhsan, Ratu & Nurizza, 2019). Empirical studies indicate an upward trend in GER, rising from 28% in 2012 to 33.66% in 2015 (Anfas & Zainuddin, 2018). Nevertheless, this figure remains relatively low compared to other countries in the region. Interregional disparities also present a significant challenge, particularly in provinces located in eastern Indonesia. For example, North Maluku recorded a GER of only 5.37% in 2010 and 30.45% in 2013, illustrating limited access to higher education for the majority of its population (North Maluku BPS).

At the methodological level, statistical estimation of GER has advanced through the application of Small Area Estimation (SAE) approaches. The EBLUP-DB method has been shown to improve the accuracy of GER estimates for higher education in Kalimantan, yielding lower RSE values compared to direct estimation or the EBLUP-FH method (Ikhsan et al., 2019). Similar findings were reported by Istiqomah & Wulansari (2022), who identified the HB Beta-logistic model as the most reliable estimator for mapping GER across various districts and municipalities. The distribution pattern of GER in regions such as East Nusa Tenggara demonstrates a random spatial characteristic, indicating that the determinants of GER are not geographically localized (Nong, Noeryanti & Beki, 2024). Nationally, the higher education GER in 2019 was around 30.28%, suggesting that higher education serves only about one-third of the college-age population (Azzahra & Hajarisman, 2022).

GER from a Gender Perspective

Gender-based analyses reveal compelling dynamics in higher education participation in Indonesia. Suryana & Pradana (2023) found that the female-to-male GER ratio in nearly all provinces exceeds 100%, indicating that women now participate in higher education at higher rates than men. This finding contrasts with classical assumptions of gender bias, which suggest that women are less encouraged to pursue higher education (Mufidah, 2003). Moreover, gender disparities across islands have continued to narrow, as demonstrated by T-test results showing no significant difference between the average GER in Java and outside Java. Nevertheless, certain regions still display noticeable imbalances, indicating the need for more targeted policy interventions.

Factors Influencing the Gross Enrollment Ratio (GER)

Analyses of the determinants of GER frequently employ multiple linear regression approaches. However, as noted by Mukhaiyar et al. (2022), multiple linear regression often faces multicollinearity issues when predictors are highly correlated. This condition leads to unstable and difficult-to-interpret estimates, prompting the use of alternative methods to examine the factors influencing GER at both the upper secondary and higher education levels. Understanding these methodological challenges is essential, as they directly affect the accuracy of education policy recommendations.

Spatial Modeling of GER: Geographically Weighted Regression (GWR)

The application of Geographically Weighted Regression (GWR) has become increasingly prominent in educational research due to its ability to capture spatial variations in the factors influencing GER. Unlike global regression models, GWR produces localized estimates that account for spatial heterogeneity across regions (Bara, Fitriani & Indrasetianingsih, 2023). This method is particularly relevant for analyzing educational dynamics in Indonesia, a country characterized by wide geographic diversity. Previous studies have successfully applied GWR to model human development indices, poverty levels, crime rates, stunting prevalence, literacy levels, and open unemployment, thereby reinforcing the method's flexibility within educational and social policy contexts.

Resource-Based View (RBV) and the Enhancement of Higher Education GER

The Resource-Based View (RBV) offers a theoretical framework for understanding how educational institutions can achieve competitive advantage through the optimization of internal resources (Barney, 1991). In the context of higher education, RBV is relevant for analyzing institutional capacity-building strategies, including the adoption of distance learning, scholarship programs, and affirmative education interventions such as ADik and PPA (Belmawa, 2019). Although RBV has been widely used to analyze performance in the private sector, its application in higher education and the public sector has also expanded, particularly concerning digital transformation and e-government implementation (Zheng et al., 2013). Nevertheless, research applying the RBV framework to polytechnics and open universities remains limited, presenting opportunities for further studies on strengthening institutional capacity to improve GER.

RESEARCH METHOD

This study employed a descriptive qualitative approach to conduct an in-depth analysis of the role of Universitas Terbuka in increasing the Gross Enrollment Ratio (GER) of higher education through a comparative study involving Indonesia, Malaysia, Singapore, and Thailand. Primary data were collected through observations and in-depth interviews with administrators, lecturers, and stakeholders of Universitas Terbuka to obtain a comprehensive understanding of its contributions, models, and strategies for improving GER. Secondary data were obtained from policy documents, national statistical reports, academic publications, and official sources from the open universities in the comparison countries. All data were analyzed using qualitative analytical techniques, including data reduction, data display, and conclusion drawing, supported by a comparative analysis to identify best practices from Malaysia, Singapore, and Thailand that are relevant for adoption in Indonesia.

RESULTS AND DISCUSSION

Overview of Universitas Terbuka's Contribution to Increasing the Gross Enrollment Ratio (GER) of Higher Education in Indonesia

The Gross Enrollment Ratio (GER) is a key indicator used to assess the accessibility and participation of college-aged populations in higher education. National data show a steady yet moderate increase in GER, rising from 30.85% in 2020 to 31.19% in 2021, then slightly improving to 31.45% in 2023 and reaching 32.00% in 2024. The average GER of

31.37% during this period reflects consistent expansion of access, although the rate of progress remains relatively slow. This incremental growth is attributed to various government policies focusing on expanding higher education capacity, strengthening distance learning, and adopting educational technologies to overcome persistent geographical and economic barriers.

The relatively low GER presents important macro-level implications. Limited access to higher education may slow the development of a well-educated workforce required to support a knowledge-based economy. Socially, low participation rates can sustain or widen disparities across regions and socioeconomic groups. Furthermore, low GER hinders the achievement of inclusive and sustainable human development goals.

Within this context, Universitas Terbuka (UT) plays a strategic role as an institution that expands higher-education access through an open and distance learning (ODL) system. UT's contribution to the national intake of new students has increased steadily from 1.55% in 2022 to 2.21% in 2023, and rose significantly to 3.42% in 2024, averaging 2.42% over the past three years. Overall, UT accounts for an average of 16.12% of the national student population, demonstrating its capacity to reach communities that are underserved by conventional higher-education institutions.

Theoretically, UT represents an effective model for reducing barriers to higher education in terms of economic constraints, geographical limitations, and time flexibility. By accommodating diverse social and professional backgrounds, UT functions as an agent of educational equity and a major contributor to the expansion of higher-education participation in Indonesia. These findings confirm that UT not only complements the national higher-education system but also serves as a strategic instrument for advancing GER and widening learning opportunities sustainably.

Supporting and Inhibiting Factors Affecting the Role of Universitas Terbuka in Increasing GER in Indonesia

To obtain relevant data regarding the supporting and inhibiting factors influencing Universitas Terbuka's (UT) role in increasing the GER, this study employed two primary methods: focus group discussions (FGDs) and in-depth interviews. Three key informants with strategic roles in the management and development of UT across different regions of Indonesia were involved. The informants include:

- a) The Director of Marketing and Cooperation (DPKS) of UT, identified as Respondent R1, who provided insights into national-level institutional policies and communication strategies.
- b) The Director of UT Ternate, identified as Respondent R2, who discussed implementation practices in eastern Indonesia, including localized challenges and opportunities for improving GER.
- c) The Director of UT Aceh, identified as Respondent R3, who shared perspectives on efforts to enhance GER in Aceh, particularly local factors influencing the program's effectiveness.

Improving the GER is a crucial indicator of sustainable human resource development. In this context, UT holds a strategic position because its open and distance learning model enables wider access to higher education, especially for those constrained by

geography, employment, or socioeconomic conditions. Findings from interviews reveal several supporting factors that strengthen UT's contribution, as well as inhibiting factors that require strategic intervention.

The first supporting factor is learning flexibility, which is UT's primary advantage. As stated in the source document: "The learning flexibility offered by UT is one of the main supporting factors. A system not bound by physical space and fixed schedules allows individuals from diverse backgrounds to access higher education." (R1). This underscores flexibility as the foundation of inclusive education, particularly for working adults, those in remote areas, and individuals with family responsibilities.

The second supporting factor is UT's nationwide reach, including remote, frontier, and underserved (3T) areas. This is reflected in the statement: "UT's service coverage, which includes all regions of Indonesia, including 3T areas, enables more effective expansion of higher-education access." (R2). Given R2's experience in an archipelagic and remote region, the attribution is appropriate. UT's wide network of study centers ensures greater educational equity and helps address regional disparities.

The third supporting factor is the utilization of information technology as an accelerator for learning. As stated: "The use of information technology in online learning and academic services is a driving factor behind increased participation." (R1). Digital technology simplifies registration, learning processes, tutorials, and assessments without geographical restrictions, demonstrating UT's significant progress in digital transformation.

Despite its strengths, UT still faces several inhibiting factors that affect its effectiveness in improving GER, particularly in areas with limited infrastructure. The first inhibiting factor concerns technological conditions in certain regions: "Limited technological infrastructure in several areas results in suboptimal access to online services." (R2). This challenge is common in eastern Indonesia, where internet reliability remains an issue.

The second inhibiting factor is the digital competence of prospective students: "Some prospective students still have low digital literacy, which makes it difficult for them to engage in distance learning." (R1). Digital literacy is essential for successful ODL implementation, especially given UT's diverse student population.

The third inhibiting factor relates to access to adequate devices: "Limited access to technological devices among certain groups remains a barrier to utilizing UT's digital learning services." (R3). Socioeconomic disparities in regions such as Aceh limit students' ability to fully benefit from UT's online services.

Overall, UT's success in improving GER depends on its ability to maximize the identified supporting factors—learning flexibility, extensive territorial coverage, and technological integration. However, sustaining and enhancing its impact requires addressing the inhibiting factors related to digital infrastructure, technological readiness, and the availability of devices among disadvantaged groups. Strengthening synergy between national policies, infrastructure preparedness, and community capacity-building will enable UT to continuously expand its impact on higher-education participation in Indonesia.

Models and Strategies of the Open University of Malaysia that Can Be Adopted by Indonesia.

This subsection discusses the models and strategies implemented by the Open University Malaysia (OUM) that are relevant for adoption by Indonesia's Universitas Terbuka (UT) in order to enhance access, quality, and the gross enrolment ratio (GER) in higher education. The discussion is based on interview findings and factual data related to OUM.

a) Overview of Malaysia's GER and the Contribution of OUM

In Malaysia's higher education sector, the gross enrolment ratio (GER) has remained relatively stable over the past several years. The GER for higher education ranges between 42% and 44%, indicating consistent public access to higher education opportunities. OUM recorded approximately 30,000 active students in 2023. Its contribution to the national GER is reflected not only in the number of active students, but also in the breadth of its academic programs and geographic reach. As of 2025, OUM offers more than 70 academic programs across various fields and has established a network of learning centres throughout Malaysia as well as in several Asian countries. Since its establishment more than two decades ago, OUM has produced over 103,000 graduates. A gender-based analysis indicates disparities in higher education participation in Malaysia. Female enrolment is significantly higher, with a GER of 47.3 percent. The Gender Parity Index (GPI) stands at 1.26, meaning that for every 100 male students, there are 126 female students.

b) Models and Strategies of the Open University Malaysia that Can Be Adapted by Universitas Terbuka Indonesia

Models and strategies from OUM that could be adopted by Universitas Terbuka Indonesia include the development of vision and mission, marketing and student recruitment strategies, scholarship expansion to improve access, and strengthened collaboration with institutions and relevant stakeholders.

1. Vision and Mission Development

OUM's vision is to be a leading provider of flexible education, while its mission is to expand access to quality education and lifelong learning through innovative teaching and learning models. These vision and mission statements can serve as references and benchmarks as UT Indonesia develops its future institutional goals and value propositions.

2. Marketing and Student Recruitment Strategies

National campaigns targeting working adults. Flexible admission pathways for non-traditional learners through the Recognition of Prior Learning (RPL) scheme. The RPL pathway acknowledges prior experience as academic credit, allowing learners to avoid starting their studies from the beginning. Partnerships with employers and government agencies. Strategic collaboration between the Open University, industry players, and government institutions is essential for expanding public access to higher education. Community outreach and public engagement. Direct outreach and public forums help educate communities about the learning opportunities available to them.



3. Scholarship Development Programs

Open University Malaysia provides three main scholarship schemes for prospective and current students, including internal scholarships for high-achieving and financially disadvantaged learners, PTPTN loans (National Higher Education Fund), and KWSP education support (Employees Provident Fund). Tuition fees remain a major barrier for many individuals seeking to pursue higher education. Through these scholarship schemes, students from low-income families are able to study without being burdened by financial constraints

4. Strategic Collaborations and Partnerships

Collaboration with local industries is essential for implementing skill-enhancement and reskilling programs. Such partnerships enable the Open University to design curricula that align closely with the specific skill demands of local communities.

In addition, international partnerships play a strategic role in curriculum development and benchmarking. Collaborations with overseas universities and institutions help the Open University regularly update its curriculum to reflect advancements in science, technology, and global labor-market needs. These international collaborations are crucial in ensuring that the institution can deliver globally competitive and high-quality education.

Strategic Recommendations for Implementation by Universitas Terbuka Indonesia

Based on the interview with Nurshakirin Bt. Zulkefli, a lecturer and tutor at the Open University of Malaysia (OUM), several strategic recommendations can be adopted and implemented by Universitas Terbuka Indonesia to enhance access, flexibility, and the overall effectiveness of open and distance higher education. These recommendations are as follows:

First, Universitas Terbuka Indonesia may adopt a blended learning model that integrates online platforms with modular self-directed learning and periodic face-to-face support. This model combines online learning, independent study using printed or digital modules, and limited in-person sessions such as tutorials, workshops, or academic clinics. Such an approach fosters a more flexible learning environment tailored to the needs of working adults and non-traditional learners.

Second, the adoption of Recognition of Prior Learning (RPL) mechanisms is essential for attracting working adults and non-traditional learners. Many prospective students possess substantial work experience but lack formal qualifications. Through RPL, learners are granted academic credit for competencies already acquired, enabling them to complete their studies more efficiently and at a lower cost. This mechanism expands educational opportunities for individuals who may otherwise be excluded from conventional pathways.

Third, strategic investment in Learning Management Systems (LMS) and mobile-based platforms should be prioritized. Developing accessible, scalable, and mobile-first digital infrastructure ensures that students can access course materials anytime and anywhere. This enhancement supports interactive, flexible, and continuous learning, which is central to the mission of open and distance education.

Fourth, Universitas Terbuka Indonesia is encouraged to strengthen financial support mechanisms through micro-scholarships and partnerships with governmental and social institutions. Micro-scholarships—small but targeted financial aids intended for registration fees, learning materials, internet quotas, or other academic necessities—can significantly

reduce financial barriers for low-income students. Collaborations with local governments, ministries, BAZNAS, LAZ, corporate CSR programs, and non-profit organizations can broaden funding sources. Such initiatives not only improve student retention but also foster a sense of institutional care and support.

Fifth, establishing partnerships with industries and educational institutions is crucial for enhancing program relevance and student trust. Collaborations with companies, professional associations, and industry actors offer valuable insights into current workforce skill demands. These partnerships enable the continuous updating of curricula to ensure practical relevance and alignment with labor market needs. Moreover, international and inter-institutional collaborations strengthen academic quality, promote benchmarking, and position Universitas Terbuka Indonesia as an adaptive and forward-looking open university.

Models and Strategies of the Open University in Thailand

Thailand has implemented various government policies and support mechanisms to strengthen its higher education institutions, including its open universities. The Thai government provides financial assistance through annual budget allocations and targeted scholarship schemes, often directed toward research projects, infrastructure development, and curriculum improvement. Policies have also been introduced to promote and support university-based research activities, including the establishment of research centers, the provision of research grants, and incentives for academics to publish their work in international journals.

The Council of University Presidents of Thailand (CUPT), formerly known as the Council of Thai University Presidents, plays an essential role in coordinating and advancing the country's higher education sector. Its historical foundation, vision, and mission are grounded in the recognition of the need for a unified body to represent Thai universities, the aspiration to elevate the quality and standards of higher education, the increasing global competition in the education sector, and the acknowledgement of universities' central role in national development.

Open universities in Thailand implement a range of academic and learning models aimed at delivering high-quality education to diverse student populations. Many Thai universities have adopted blended learning approaches that combine traditional face-to-face teaching with online components. This model enhances flexibility and accessibility while retaining the benefits of direct interaction.

To improve the Gross Enrolment Ratio (GER), Thailand's open universities employ multiple marketing and student recruitment strategies. They make extensive use of social media platforms, university websites, and digital advertising to reach prospective learners. Institutions develop engaging content, virtual campus tours, and interactive experiences to showcase their academic programs and facilities.

Scholarship programs play a key role in improving access to Thailand's open universities by removing financial barriers—particularly for students from rural areas and low-income backgrounds. These programs typically cover tuition fees, living expenses, and other educational costs. In addition to promoting equity, the schemes support disadvantaged groups, encourage academic excellence, and improve graduates' employability.

Open universities in Thailand are also integrating advanced learning innovations, such as personalized learning pathways supported by artificial intelligence (AI). They strengthen

industry–academia collaboration for Work-Integrated Learning (WiL) and adopt new inclusive international education models aimed at career readiness, entrepreneurship development, and global citizenship. These innovations include project-based learning, mentoring programs, and integrated curricula that combine business and technology competencies.

Thailand’s open universities are supported by robust IT infrastructures, including curriculum management systems (CMS) and learning management systems (LMS) connected through the NeDNet network. This infrastructure supports digital content delivery in various formats—text, video, and interactive tools—facilitates communication, and enables resource sharing. In addition, strong emphasis is placed on capacity building through professional development programs for faculty and staff to improve the effectiveness of online learning environments.

International collaboration is also a key component of Thailand’s open university model. Institutions engage in Transnational Education (TNE), joint research initiatives, academic exchanges involving visiting scholars and students, and international joint-degree programs. These efforts are often supported by national initiatives such as the Thailand–UK World-Class University Consortium and the U.S. Embassy’s International Academic Partnership Program (IAPP), which aim to enhance educational quality and global competitiveness.

To meet instructional needs, Thailand’s open universities employ strategic human resource management focused on recruitment, talent retention, capability enhancement, performance management, and long-term workforce planning. By investing in training, career development, and competitive compensation, the institutions cultivate the human capital necessary to maintain high-quality teaching and research.

Despite these advancements, Thailand’s open universities continue to face significant challenges, including declining student enrolment due to an ageing population, skills mismatches between graduates and labor market demands, financial pressures arising from a changing and competitive job market, outdated curricula, and the need to keep pace with rapid technological developments.

Strategic Recommendations from Open Universities in Thailand

Universitas Terbuka Indonesia can draw inspiration from the successful strategies implemented by Open Universities in Thailand to enhance academic reputation and global competitiveness. In terms of internationalization, Universitas Terbuka Indonesia may focus on strengthening international collaborations, student exchange programs, and joint research projects with foreign institutions. These approaches have helped Thai Open Universities build a global profile and attract international students and faculty members.

Emphasis on research is also a crucial strategy. Prioritizing research output and quality can significantly benefit Indonesian institutions. Thai Open Universities have made notable progress by investing in research facilities, providing incentives for publications in reputable journals, and fostering a strong research culture among faculty members and students.

Collaboration with industry represents another strategic direction. Strengthening relationships with industry partners can lead to more market-relevant education and research. Thai Open Universities have benefited from collaborations with domestic and international

companies, resulting in additional funding, internship opportunities, and joint research initiatives.

English-medium instruction has also become an important strategy that can be adopted. Expanding English-based curricula and study programs can attract international students and prepare domestic learners for global careers. Many Thai universities have successfully implemented this approach to enhance international appeal, strengthen quality assurance, and pursue global accreditation. Implementing rigorous quality assurance processes and seeking international accreditation can help Universitas Terbuka Indonesia elevate academic standards and gain global recognition.

Specialized programs and Centers of Excellence also serve as valuable references. Developing niche expertise and establishing Centers of Excellence can help Universitas Terbuka Indonesia excel in specific areas. Thai Open Universities have successfully implemented this strategy to become regional leaders in fields such as agriculture, tropical medicine, and hospitality management.

Digital transformation is another area where Thai Open Universities have made significant progress. Integrating technology into teaching, research, and administrative processes can improve efficiency and better prepare students for the digital era. Thai Open Universities have advanced in implementing online learning platforms, digital libraries, and Smart Campus initiatives.

Alumni engagement is also emphasized. Strengthening relationships with alumni can generate additional funding, mentorship opportunities, and industrial collaborations. Thai Open Universities have effectively leveraged their alumni networks to support institutional initiatives.

Entrepreneurship and innovation likewise represent key priorities. Fostering an entrepreneurial and innovative culture through incubators, startup competitions, and industrial partnerships can help Universitas Terbuka Indonesia produce high-quality talent and attract further investment. Thai institutions have demonstrated success in this area, particularly in technology-related sectors.

A focus on sustainable development is increasingly relevant. Integrating sustainability principles into curricula, research, and university operations can help Universitas Terbuka Indonesia address global challenges and strengthen its reputation. Thai Open Universities have made notable progress in this area, aligning their initiatives with the United Nations' Sustainable Development Goals (SDGs).

Public partnerships also form an important strategic element. Collaborating closely with government agencies to align curricula with national development priorities can enhance institutional support and funding. Thai Open Universities benefit significantly from such collaborations, particularly in fields deemed strategic for national development.

Finally, cultural preservation and promotion are key aspects. Leveraging Indonesia's rich cultural heritage in academic programs and research can attract international attention and create a competitive advantage. Thai Open Universities have successfully integrated cultural resources across disciplines, thereby enhancing their global appeal.

Models and Strategies of Open Universities in Singapore

The Singapore government, through the Ministry of Education (MOE), implements a wide range of strong policies and support mechanisms to ensure that higher education



remains affordable, high-quality, and capable of driving national capacity development. The government provides substantial subsidies for higher education tuition fees, offers financial aid schemes and bursaries for students from low- and middle-income families, and promotes multiple learning and upgrading pathways through diploma, vocational, and ITE graduate upgrading programmes. The government also strengthens the financial resilience of higher education institutions through endowment funds with matching-donation schemes, enabling universities to secure alternative and sustainable funding sources.

The Open University–Singapore Institute of Management (OU-SIM) emerged as a response to Singapore’s national need for a resilient and future-ready workforce capable of driving economic growth. Its institutional vision evolved toward becoming a centre of excellence in education, management development, and lifelong learning, supported by a mission that emphasizes strategic partnerships with corporations, a strong focus on people and human capital, and the provision of continuing education for individuals from diverse backgrounds.

OU-SIM established an organizational structure specifically designed to support fully distance-learning delivery through specialized units such as Academic Services, the Learner Advisory & Career Centre, Quality Assurance, Programme Operations, Student Recruitment, and Academic Partner Development & Management. These units facilitate curriculum development, programme operations, and comprehensive student support.

In its academic and learning model, OU-SIM implements an approach that aligns with workforce needs, technological developments, and lifelong learning principles. Programmes are developed in partnership with industry, incorporate real-world case studies and work-based experiences, and are delivered flexibly through face-to-face, online, and blended modalities. A student-centred pedagogical approach is emphasized through digital transformation, online learning strategies, blended learning, EdTech integration, and the EE-GAR pedagogical framework.

OU-SIM adopts integrated, internationally oriented, and digitally driven marketing and recruitment strategies. Its rebranding with the tagline “Learn for Life, Thrive for Life” strengthens its positioning as a lifelong learning institution. OU-SIM targets Southeast Asian markets and enhances digital marketing through specialized recruitment agents focusing on awareness building, lead generation, and application conversion. The institution also offers scholarships and financial assistance to attract high-achieving domestic and international students.

Scholarship programmes at OU-SIM play an essential role in expanding access to education through schemes such as the OU-SIM GE Diploma Scholarship, which fully covers tuition fees for outstanding international students, as well as financial assistance programmes like the Enhanced Financial Aid (Bursary) to support students' academic needs.

OU-SIM implements various learning innovations, including fully online programmes (100% online), multiple intakes per year, skills-based curricula such as Design Thinking, Agile, Systems Thinking, and Leadership, and the International Immersion Programme that integrates industry visits and cross-country collaboration.

OU-SIM’s IT infrastructure supports distance learning through an advanced online learning platform that enables students to access materials anytime and on any device (“access

anywhere, on any device”). Its end-to-end digital ecosystem integrates registration, payment, course classification, and student services within a cloud-based system.

OU-SIM establishes global partnerships with leading universities such as RMIT University and the University of London, providing students access to international degree programmes, credit transfer opportunities, and global-local academic value. OU-SIM also collaborates with industry through work-and-study programmes and expands its outreach through Overseas Teaching Centres (OTCs) in several countries, including Indonesia.

OU-SIM has a large and diverse academic community composed of full-time faculty, associate lecturers, and visiting faculty from partner universities and industry. Institutional units such as Academic Services, Academic Partner Development & Management, and Quality Assurance support faculty development, pedagogical training, and ongoing professional development.

Despite its strengths, OU-SIM faces several challenges, including heightened regulatory requirements, increasing competition within the private education sector, declining domestic and international enrolment, and concerns regarding graduate employment outcomes, as research indicates that graduates from private institutions tend to secure full-time employment at lower rates and earn lower starting salaries than graduates from public universities.

Strategic Recommendations That Can Be Applied by Universities in Indonesia Based on the Success Story of the Open University–Singapore Institute of Management (OU-SIM)

Indonesian universities can establish collaborations with leading international universities to offer globally recognized degrees and diplomas, following the strategy of OU-SIM, which partners with international universities to enhance attractiveness and expand options for students.

They can adopt online, part-time, modular, and lifelong learning programs similar to those implemented by OU-SIM, enabling workers, professionals, and non-traditional learners to participate.

Indonesian universities need to ensure that their curriculum is not only academic but also industry-based, developing skills such as leadership, systems thinking, agility, and human capital, similar to OU-SIM’s vision.

Like OU-SIM, which has established offices and teaching centres in neighbouring countries such as Indonesia, Indonesian universities can explore regional markets, open cross-border programs, and strengthen branding and international student recruitment.

Providing comprehensive services—career guidance, international exposure, internship/work opportunities, and a diverse student ecosystem—should be part of the “educational product” that attracts prospective students. OU-SIM does this through Career Connect, industry networks, and global experiences.

Universities must have a strong identity, such as OU-SIM with the tagline “Learn for Life, Thrive for Life,” and communicate advantages such as global access, flexibility, career pathways, and lifelong learning to stay competitive in the increasingly dynamic education market.



Strategic Recommendations for Universitas Terbuka Indonesia Based on Comparative Studies

Based on comparative studies of Open University Malaysia (OUM), the Open University of Thailand, and Singapore, several relevant and contextual strategic recommendations can be formulated for Universitas Terbuka Indonesia (UT) to strengthen its role in increasing the national Gross Enrolment Ratio (GER) in higher education. First, strengthening the learning model and digital infrastructure should be a top priority. UT needs to adopt blended learning as its main learning model, combining online learning, independent learning, and limited face-to-face sessions. This model offers higher flexibility for students with diverse backgrounds, especially adult workers. In addition, increasing investment in Learning Management Systems (LMS) and developing mobile-based learning applications are essential to expanding academic services across Indonesia, including 3T regions (frontier, outermost, disadvantaged).

Second, improving accessibility and inclusion in higher education must be pursued through the national implementation of the Recognition of Prior Learning (RPL) system. This system recognizes work experience and non-formal training as academic credits, thereby attracting more non-traditional learners to pursue higher education. Furthermore, the development of micro-scholarships and collaborative scholarships with local governments, social institutions, corporate CSR programs, and religious institutions such as BAZNAS and LAZ will expand learning opportunities for low-income communities.

Third, UT must strengthen internationalization, collaboration, and academic quality. This can be achieved through global cooperation in academic exchanges, collaborative research, and dual-degree program development. Improving research quality and scientific publications must be supported by providing adequate incentives and research facilities. The development of Centres of Excellence and internationally standardized bilingual curricula will strengthen UT's academic reputation globally and enhance the competitiveness of its graduates.

Fourth, UT must carry out institutional transformation and continuous innovation. Sustainability education and local wisdom need to be integrated into the curriculum and learning governance to support sustainable development. In addition, an entrepreneurial and innovation culture must be developed through the establishment of a campus business incubator and strategic partnerships with industry. Strengthening alumni networks is also a strategic step to support funding, career guidance, and institutional promotion. By adopting integrated approaches from Malaysia and Thailand, Universitas Terbuka Indonesia can position itself as an adaptive, inclusive, and globally competitive open university. These strategies will not only strengthen UT's contribution to increasing the national GER but also support Indonesia's agenda for developing excellent and sustainable human resources.

Suggestions that can be offered include strengthening UT's digital infrastructure and innovation in its learning system. Developing a modern Learning Management System (LMS), implementing AI-based learning, and expanding internet access in 3T areas are priority steps to improve the quality and reach of academic services. The national implementation of the Recognition of Prior Learning (RPL) system should become a major agenda to provide opportunities for people with work experience or non-formal education to continue their

higher studies. This policy will increase inclusivity and attract more non-traditional learners. UT is advised to develop inclusive financing and scholarship schemes through collaboration with local governments, zakat institutions, and the private sector. Micro-scholarship programs and flexible financing mechanisms can help low-income communities access higher education.

Strengthening internationalization and academic collaboration must be continuously improved. Research collaborations, academic exchanges, and dual-degree program development with international universities will strengthen UT's global competitiveness and the quality of its graduates. UT must carry out institutional transformation by implementing transparent governance, encouraging an innovation culture, and developing business incubators to foster entrepreneurship among students and alumni. Integrating Sustainability Education and local wisdom into the curriculum needs to be strengthened to support sustainable development and community empowerment. Strengthening the role of UPBJJ-UT as a centre of educational innovation is also important to ensure equitable access across Indonesia.

Research findings show that Universitas Terbuka (UT) has a significant contribution to increasing the Gross Enrolment Ratio (GER) of higher education in Indonesia. With an average contribution of 16.12% to the national student population, UT plays a central role in expanding access to higher education for populations underserved by conventional universities. This finding aligns with UNESCO (2021), which emphasizes that open and distance learning (ODL) is a strategic instrument for expanding higher education access in developing countries that face geographical and economic barriers. UT's flexible model supports equitable access, aligned with the SDG 4 – Quality Education framework.

Key supporting factors in UT's success are learning flexibility, wide geographic reach, and the use of digital technology. Interview results indicate that flexibility is the main differentiator driving adult learner participation. This is consistent with Tait (2018) in the International Review of Research in Open and Distributed Learning (IRRODL), which states that flexibility in time and location is the strongest factor influencing participation among adult learners. However, this research also identifies structural barriers such as low digital literacy, limited internet infrastructure, and unequal device ownership, challenges also found in other ASEAN countries (Bond, M., Marín, et al., 2018).

Comparative studies with Malaysia, Thailand, and Singapore show that open universities across Southeast Asia have succeeded in increasing enrolment through integrated strategic models. OUM Malaysia emphasizes inclusion through RPL, financial aid, and multisector partnerships, in line with Altbach & de Wit (2020), who highlight the importance of lifelong learning ecosystems for expanding higher education access. Thailand utilizes blended learning, systemic digitalization, and international cooperation as key drivers of GER improvement, supporting OECD (2022) findings that digitalization is a catalyst for post-pandemic higher education transformation. Meanwhile, OU-SIM Singapore excels with its industry-driven approach, skills-based curriculum, and end-to-end student services, aligned with the World Economic Forum (2023) concept of future-ready universities.

These findings show that UT needs to adopt more integrated strategies to strengthen its contribution to improving GER. Adopting blended learning, expanding RPL, investing in mobile-based LMS, and strengthening micro-scholarship programs are highly relevant to

Indonesia's diverse context. In addition, strengthening internationalization through dual degrees, collaborative research, and globally standardized bilingual curricula can enhance UT graduates' competitiveness, as recommended by Marginson (2019) in his studies on higher education globalization. Institutional transformation is also needed through strengthening an innovation culture, developing business incubators, and involving alumni, which according to Salmi (2022) are important characteristics of adaptive and sustainable universities.

Overall, the research findings reinforce the argument that UT plays a strategic role in expanding higher education access and reducing participation disparities across regions. By strengthening digital infrastructure, enhancing international collaboration, and adopting best practices from other ASEAN countries, UT has the potential to become an excellent and globally competitive open university. Integrating these strategies will not only accelerate the growth of Indonesia's GER but also strengthen national capacity in developing innovative, inclusive, and future-ready human resources

CONCLUSION

This study concludes that Universitas Terbuka (UT) plays a strategic and significant role in increasing the Gross Enrollment Ratio (GER) of higher education in Indonesia, contributing an average of 16.12% to the national student population and increasing to 19.19% in 2024. This contribution confirms the effectiveness of UT's open and distance learning model in expanding access to higher education, particularly for remote communities, working adults, and economically disadvantaged groups. UT's role is strengthened by its institutional legitimacy as a state university with strong accreditation, consistent government policy support, and flexible learning systems that accommodate non-traditional learners. Comparative analysis with Open University Malaysia, the Open University of Thailand, and OU-SIM Singapore shows that successful GER improvement relies on integrated strategies combining inclusive access, digital and blended learning, financial support mechanisms, industry-oriented curricula, and international collaboration. Based on these findings, UT Indonesia is encouraged to strengthen digital transformation and blended learning, expand Recognition of Prior Learning (RPL) and collaborative scholarship schemes, enhance internationalization, and promote continuous institutional innovation. These strategic directions are expected to improve UT's competitiveness and reinforce its contribution to national human resource development, while providing a foundation for future research on the impact of digitalization and global partnerships on higher education outcomes.

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