



الجامعة الإسلامية العالمية ماليزيا
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
يُونَيْبَرِيَّتِيْ اِسْلَامٌ اِنْتَارَا اِيْحْسِيَا مَلِيْسِيَا
Garden of Knowledge and Virtue

POLICY BRIEF

DEVELOPING INCLUSIVE BUMIPUTERA HUMAN CAPITAL FOR MALAYSIA'S DIGITAL TRANSFORMATION

AUTHOR NAME Jarita Duasa	DESIGNATION Professor
	AFFILIATION Department of Economics, Kulliyah of Economics and Management Sciences, International Islamic University Malaysia
	AREA OF EXPERTISE Economic Development, Applied Economics, International Finance, Islamic Social Finance, Environmental Economics.
	CONTACT EMAIL jarita@iium.edu.my

Key Insights

- ❖ The main policy challenge has shifted from expanding educational access to ensuring the quality and labour market relevance of education in the digital economy in Malaysia.
- ❖ Persistent skills mismatch, rather than lack of job opportunities, is a key constraint limiting graduate employability and productivity growth.
- ❖ Participation in the digital economy requires hybrid competencies that combine technical expertise with adaptive and soft skills.
- ❖ Lifelong learning and structured reskilling are essential to prevent workforce displacement amid rapid technological change.
- ❖ Digital inclusion—through infrastructure and institutional support—is a necessary foundation for achieving inclusive economic growth.

Progress in Educational Access and Structural Shifts

The study highlights that Malaysia has made substantial progress in expanding educational access among Bumiputera communities through affirmative policies, scholarship schemes, and institutional support mechanisms. Enrolment rates at secondary and tertiary levels have improved significantly over the past decades, contributing to upward social mobility and poverty reduction. This expansion has successfully addressed quantitative disparities in participation.

However, the findings suggest that the policy focus has historically emphasised access and credential attainment rather than the quality and market relevance of education. While more Bumiputera students are entering universities and colleges, their representation remains relatively concentrated in traditional disciplines, with lower participation in high-value digital, technical, and STEM-related fields. This structural imbalance limits effective participation in Malaysia's emerging digital economy.

Thus, the central issue has evolved from educational inclusion to economic integration—specifically, whether current education and training systems adequately prepare Bumiputera graduates for high-productivity, technology-driven sectors.

Skills Mismatch and Workforce Readiness Challenges

A key finding of the study is the persistence of skills mismatch between educational outputs and labour market demands. Despite rising graduate numbers, underemployment and graduate unemployment remain concerns, particularly among those lacking practical industry exposure and digital competencies.

The digital economy increasingly demands hybrid skill sets—combining technical proficiency (e.g., programming, data analysis, digital systems management etc.) with soft skills, such as communication, adaptability, and problem-solving. Yet many graduates enter the labour market with limited industry related experience and insufficient exposure to real-world applications.

In addition, mid-career workers face displacement risks as automation and digitalisation transform traditional sectors. Without systematic reskilling pathways, segments of the workforce may struggle to transition into higher-value employment.

The study therefore underscores the need for a more integrated ecosystem linking educational institutions, industry players, and training providers to ensure workforce readiness in a rapidly evolving economic environment.

Digital Inclusion and Capability Development

Beyond formal education and training, the study emphasises the importance of capability formation in ensuring inclusive digital participation. Access to digital infrastructure, mentorship networks, innovation ecosystems, and entrepreneurial platforms plays a critical role in shaping long-term outcomes.

Disparities in digital access—particularly in rural and lower-income communities—risk widening inequality in the digital era. Without adequate connectivity, devices, and institutional support,

education reforms alone cannot translate into meaningful economic inclusion.

Furthermore, human capital development in the digital economy requires not only technical competence but also adaptability, ethical awareness, and innovation capacity. As Malaysia aims to achieve high-income nation status, developing resilient and future-ready human capital becomes central to sustaining productivity growth and social cohesion.

The study therefore calls for a shift from quantity-driven policies toward outcome-based and capability-oriented frameworks that emphasise employability, digital fluency, and long-term economic resilience.

Policy Recommendations

- ❖ Reform curricula through structured industry participation to ensure alignment with digital economy demands.
- ❖ Reposition and modernise TVET as a strategic pathway for digital manufacturing, automation, and technology-based industries.
- ❖ Integrate digital literacy and data competencies across all tertiary disciplines.
- ❖ Shift educational performance metrics from enrolment targets to employability and income-based outcomes.
- ❖ Institutionalise mandatory industry attachments and apprenticeship programmes.
- ❖ Develop structured reskilling and upskilling programmes for mid-career workers through modular certifications.
- ❖ Provide incentives for employer-led digital training, especially among SMEs.
- ❖ Establish a national digital skills competency framework to harmonise training standards.
- ❖ Expand broadband and digital infrastructure access in underserved communities.
- ❖ Strengthen mentorship, entrepreneurship incubation, and career guidance systems targeting Bumiputera youth.
- ❖ Improve inter-agency coordination to ensure coherent human capital and digital economy strategies.



For questions, feedback and comments, please contact
Assoc. Prof. Dr. Hassanudin Bin Mohd Thas Thaker
hassanudin@iium.edu.my

Assoc. Prof. Salman Ahmed Shaikh
salman@iium.edu.my

