

Exploring Global Partnerships to Reduce Malaysia's Brain Drain Through Knowledge Transfer, Diaspora Ties, and Ethics (Aligned with SDG 17: Partnership for the Goals)

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ABSTRACT

Brain drain, the global migration of educated and skilled professionals, is one of the prominent problems of national development for Malaysia. Since the 1970s, the country has registered an outflow of talent for the domains of science, technology, medicine, engineering, and finance. This is the result of various interrelated push-and-pull factors like wage differentials, restricted vertical social mobility, political instability, and lucrative opportunities overseas. Singapore, Australia, the UK, and the US are the preferred emigration destinations for Malaysian professionals. Of the 1.86 million Malaysians living abroad, more than half are in semi-skilled or skilled positions. The impacts are dire: lack of innovative capacity, poor research productivity, and understaffed healthcare, not to mention the wider implications on Malaysia's financial governance. All of these jeopardize the country's efforts to transform into a high-income, knowledge-based economy. This essay assesses the causes and trends of brain drain in Malaysia with particular focus on the years between 2020 and 2025. It aims to show the consequences of phenomenon on the competitiveness of the country, public service delivery, and socio-economic equity. It addresses the structural problems of insufficient R&D funding in the country alongside the lack of amenities to support the culture of innovation. Insights from nations that have effectively reversed brain drain, like India, China, South Korea, and Ireland, provide useful strategies such as diaspora outreach initiatives, attractive return fellowships, enhancement of research infrastructure, and collaborations between industry and academia. Drawing from these insights, the essay suggests diverse partnership models for Malaysia, encompassing government-to-government agreements, collaborations between academic institutions, industry connections, and platforms for diaspora engagement. It is determined that addressing Malaysia's brain drain needs extensive policy changes that enhance job conditions, bolster innovation systems, and leverage the diaspora's skills via knowledge exchange and circular migration.

Keywords: Brain drain, Skilled migration, Knowledge transfer, Diaspora engagement, Human capital development

INTRODUCTION

Every nation has experienced "Brain-Drain" in one form or another. It encompasses both developed and developing nations. It describes the emigration of skilled workers who constantly seek out better opportunities outside of their native country. The rise in migration to developed or developing nations has been driven by a few contributing factors, including social, political, and economic ones.

Background on Brain Drain in Malaysia

It was the 1970s, Malaysia starts realizing the brain-drain in the fields of Science and Technology, Medicine and Engineering (Kaur, 2010). The ever-changing economic landscape, the advancement of information technology and globalization has further contributed to this trend which has been a persistent problem almost all over the

world, particularly, in countries where the economy is developing. Thus, Malaysia is not an exception. Economic disparity, career movements and better opportunities in foreign countries have driven many Malaysians to move to overseas (Rasiah, 2012).

It is partially true that the government's ethnic-based policies which favors Bumiputera largely has attributed to other races such as Chinese and Indian communities' emigration to western countries. Though the government's effort to bring them back initiatives such as The Returning Expert Program, establishing MSC Malaysia and TalentCorp has done a little as the effectiveness of these programs remains debated due to structural and policy related challenges. As reiterated by Yusoff & Kaur (Yusof & Kaur, 2014), Malaysia's innovation capacity and long-term economic competitiveness, brain drain continues to affect the economy. For any economy, human capital has been an asset in terms of nations long-term competitiveness in critical sectors such as healthcare, education and technology.

Definition of Brain-Drain

According to the Cambridge Dictionary, brain drain is "the phenomenon where a significant number of highly educated and skilled individuals leave their home country to settle and work abroad, typically in nations offering better salaries and living conditions." According to other definitions, it is "the movement of highly educated, skilled professionals and students from one nation to another in search of better opportunities, higher incomes, better quality of life, or more favorable political and economic environments."

The term "brain drain" describes the mass exodus of highly qualified, educated, or gifted people from one nation, company, or industry to another, usually in pursuit of better job prospects, better working conditions, or an improved standard of living (Docquier & Rapoport, 2012). Although people gain from increased pay and professional advancement, the source nation loses human capital when they leave, which could impede innovation and national development (Kapur & McHale, 2005).

Overview of Malaysia's brain drain

Malaysia's predicament with brain drain has long grappled where a considerable number of educated and skilled citizens emigrated to the popular destinations such as Singapore, Australia, UK and the US. For decades, the country has struggled with the emigration of its educated and skilled citizens, many of whom relocate to popular destinations such as Singapore, Australia, the United Kingdom, and the United States. World Bank statistics indicate that over one million Malaysians currently reside abroad, the majority being highly educated individuals. Supporting this concern, Malaysia's Digital Minister, Gobind Singh Deo, highlighted that the nation faces a critical brain drain challenge, with 1.86 million Malaysians (5.6% of the population) having left the country over the past 50 years—significantly higher than the global average of 3.6% (Opalyn Mok, *Malay Mail Daily*, April 29, 2025)."

As discussed above, this outflow of talents can be attributed to superior pay and promising professional and career growth, quite civil life and many more which can be compared to the local atmosphere. Other "push" factors for this heavy and continuous emigration are over limited career growth, perceptions of scant meritocracy and socio-political issues in Malaysia

Understanding Brain Drain in Malaysia

Causes and Trends: Economic factors, education opportunities abroad, career prospects

The economic push factors along with attractive educational options and better career opportunities in foreign countries attributed to Malaysia's brain drain. Wage disparities is often cited by professionals as a reason for outward mobility along with other primary factors such as career mobility and the saturations of domestic job market. Countries like Singapore, Australia, and the UK offer higher salaries and better working conditions, making them appealing alternatives (Lee & Shafie, 2023). It becomes a norm among educated Malaysians to pursue tertiary degrees overseas due to higher quality, global exposure and employability options (Chang, 2022).

This phenomenon subsequently leads to permanent migration as the students can secure jobs through meritocratic career paths and greater investment in research, innovation and professional growth (Yusoff et al., 2021). These structure factors are considered as a strong pull factor for the high-achieving Malaysians, perpetuating the outflow of talent.

Economic Factors

A primary driver of brain drain is the economic disparity between Malaysia and more developed nations.

- **Salary and Compensation:** The most frequently cited reason for emigration is the lure of higher salaries and better compensation packages abroad. A 2024–2025 survey found that 32% of the Malaysian workforce intended to seek a pay raise, indicating widespread dissatisfaction with current wage levels (People Matters Global, 2025). This is particularly evident in fields like engineering and technology, where skilled professionals can earn significantly more in countries like Singapore (People Matters Global, 2025). This wage gap is often compounded by a slow wage growth in Malaysia that lags rising productivity and the increasing cost of living (Emir Research, 2024).
- **Quality of Life and Economic Stability:** Beyond direct income, the overall economic environment and quality of life in destination countries serve as powerful "pull factors." Many Malaysians are drawn to the perceived stability of more prosperous economies, coupled with concerns over Malaysia's economic and political uncertainties (Emir Research, 2024).

Educational Opportunities Abroad

The pursuit of better educational opportunities is a significant precursor to brain drain. Many Malaysian students who go abroad for their tertiary education do not return.

- **International Exposure:** Students often choose to study in developed countries due to the prestige of their universities, access to advanced research facilities, and the desire for international exposure (TalentCorp, 2020). These students, after completing their studies, often find that their specialized skills are more valued and better compensated for in their host countries. This is especially true for those in "niche subject areas" like pure sciences and arts, where job opportunities in Malaysia are limited (TalentCorp, 2021).
- **The "Push" of Limited Opportunities:** The lack of suitable job opportunities back home can compel graduates to stay overseas. A 2020 study by TalentCorp found that many young individuals who completed their higher education abroad felt they were "forced to stay overseas due to a lack of opportunities back home" (TalentCorp, 2020). This highlights a critical disconnect between the education system, which produces highly skilled graduates, and the domestic job market's ability to absorb them.

Career Prospects

The lack of appealing career prospects in Malaysia is a major "push factor" contributing to the talent exodus.

- **Limited Professional Growth:** The perception of professionals is that adequate career advancement is not available in the local industries (Emir Research, 2024). It has been associated with lack of opportunities for learning new skills aligned with global technological trends, stimulating training, and challenging job scopes. This is particularly problematic in sectors with a lack of research and development (R&D), where skilled professionals are forced to seek opportunities elsewhere to apply their expertise (TalentCorp, 2021).
- **Workplace Culture:** Many Malaysian professionals also cite a dissatisfying workplace environment as a reason for leaving. This can include a poor work-life balance, rigid and autocratic organizational structures, and a lack of innovation and creativity (Emir Research, 2024). These factors, combined with the other economic and career-related issues, create a less-than-ideal environment for ambitious and skilled workers.

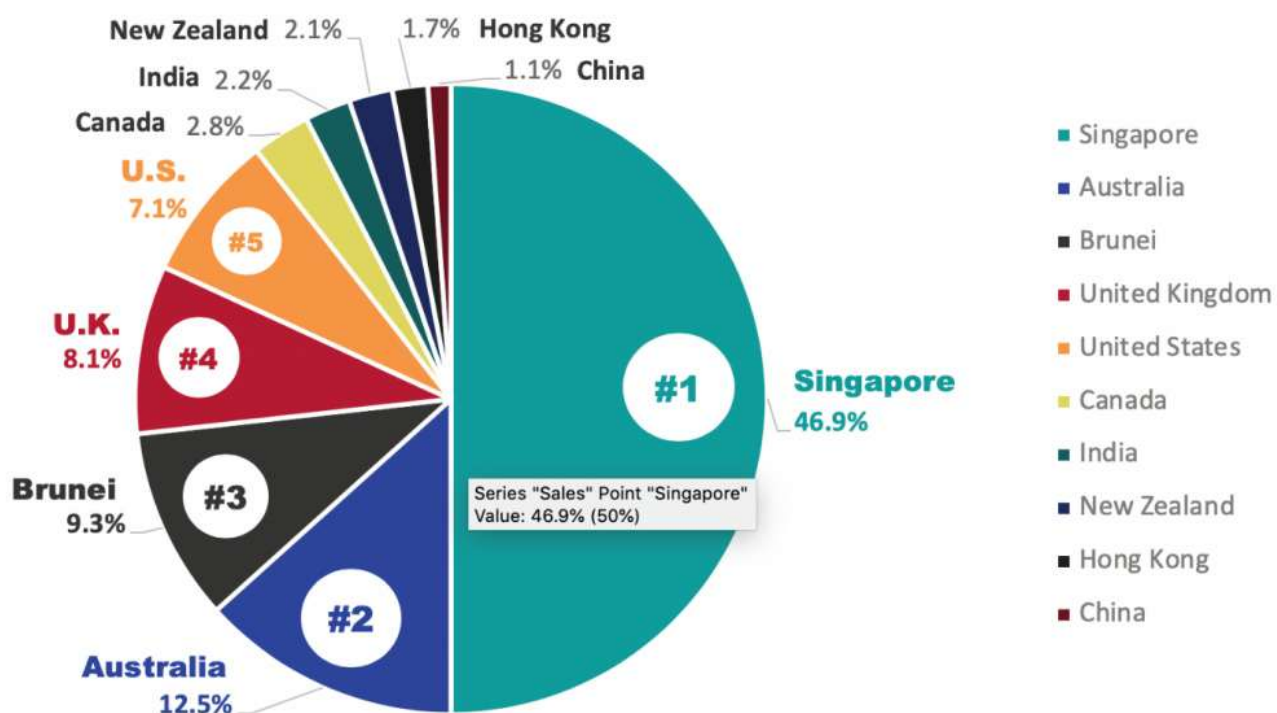
While these factors present a significant challenge, government agencies like TalentCorp have been working to

address them. Initiatives such as the "Returning Expert Programme" and the "Malaysia@Heart" initiative aim to attract and engage with the Malaysian diaspora (New Straits Times, 2024). However, for these programs to be truly effective, they must be part of a broader strategy that addresses the fundamental economic and structural issues driving talented Malaysians abroad.

Historical trends and current data

Malaysia's "brain drain" is a long-standing issue with a well-documented history and a growing body of current data that highlights its severity and complexity. This phenomenon, which has been intensifying over the decades, is characterized by the movement of highly skilled and educated individuals, posing a significant challenge to the nation's development goals.

The top destinations for Malaysian talent pool is Singapore with an estimated 47% residing. Australia, Brunei, UK, and US are other popular destination and would form top 5 destinations. Collectively, these countries make up nearly 84% of the entire Malaysian diaspora.



Top destinations for Malaysian diaspora (% of total Malaysian diaspora), 2015

Source: Ipsos Analysis, based on World Bank Report 2011 (Brain Drain)

Note: The above chart depicts the top 10 destinations only. The top 10 destinations make-up 92.1% of total Malaysian diaspora.

Source: <https://mprh.lppkn.gov.my/the-brain-drain-phenomena/>

Current Data on Malaysia's Brain Drain (2020-2025)

Recent statistics underscore the ongoing scale and impact of skilled emigration.

Scale and Demographics

- According to the Department of Statistics Malaysia (DOSM, 2023), approximately 1.6 million Malaysians were living abroad in 2023. Of these, an estimated 40% (around 640,000) are skilled workers, including professionals, technicians, and managers.

- The World Bank (2023) reports that Malaysia's high-skilled emigration rate—defined as the share of tertiary-educated individuals living abroad—was 16.7% in 2022, up from 13.2% in 2000. This is higher than Indonesia (5.8%), Thailand (9.1%), and the Philippines (10.4%).

Key Sectors Affected

- Healthcare: As of 2023, over 2,500 Malaysian doctors were registered to practice in Singapore, Australia, the UK, and New Zealand (**Malaysian Medical Council, 2023**). The Ministry of Health noted a doctor-to-patient ratio of 1:600, below the WHO-recommended 1:500, with emigration cited as a contributing factor.
- Higher Education and Research: A 2022 study by the Khazanah Research Institute (KRI) found that over 40% of PhD graduates from top Malaysian universities eventually emigrate, primarily for postdoctoral or academic positions abroad.
- Technology and Digital Economy: According to a 2023 survey by the Malaysian Digital Economy Corporation (MDEC), 27% of tech professionals expressed intentions to relocate within five years, citing higher salaries abroad and limited innovation ecosystems at home.

Destination Countries

- Singapore: Hosts the largest number of Malaysian professionals (estimated 60–70% of skilled emigrants), particularly in engineering, finance, and healthcare.
- Australia: Over 100,000 Malaysians reside there, with strong representation in medicine, academia, and IT.
- UK and USA: Remain popular for postgraduate training and research careers.
- Canada and New Zealand: Increasingly attractive due to immigration-friendly policies and quality of life (IOM, 2022).

Migration and Brain Circulation

While permanent return rates remain low, there is a growing trend of temporary return and remote collaboration. The UNDP (2021) estimates that only about 15–20% of skilled Malaysians abroad return permanently, often during mid-career or retirement. However, digital platforms have enabled "virtual return," where diaspora experts contribute to research, mentorship, and startups from abroad.

How many Malaysians live abroad today?

The most widely cited anchor is 1.86 million Malaysians residing overseas as of 2022, drawn from official tabulations and repeated by the Human Resources Ministry, TalentCorp, and mainstream media from 2023–2025. Of these, about 1.13 million—roughly three-fifths—live in Singapore, underscoring a powerful regional gravity effect. (Astro Awani, 2023; Malay Mail, 2024; TODAY/CNA, 2024).

Expressed as a rate, Malaysia's emigrant stock equals about 5.5–5.6% of the population—above the global average (≈ 3.3 – 3.6%)—placing Malaysia among the higher-emigration middle-income economies in East Asia. (Astro Awani, 2023; Straits Times, 2024; Malay Mail, 2024).

Where do they go—and what skills do they take?

Destination concentration is striking. Alongside Singapore, the United Kingdom, Australia, the United States and Brunei account for much of the remainder; China and Canada also host visible communities. (Malay Mail, 2024). Within this stock, skill indicators are notable. The government's 2022 study of Malaysians in Singapore—

released in February 2024—found that more than half hold tertiary-level qualifications, and among those employed, about 74% are in skilled or semi-skilled roles. (Bernama/Malay Mail, 2024; TODAY/CNA, 2024).

A parallel lens is the professional diaspora in the Anglosphere: press reporting in late 2024 highlighted >15% of the Malaysian diaspora ($\approx 281,000$) as trained professionals or degree holders living in Australia, the US, the UK and Canada—illustrating that human capital outflows extend beyond the Singapore corridor. (The Star, 2024).

1. The Impact of Losing Skilled Professionals (STEM, Healthcare, Finance) on Malaysia's National Development

The outmigration of skilled professionals from critical sectors such as science, technology, engineering, and mathematics (STEM), healthcare, and finance poses substantial challenges to Malaysia's national development. This "brain drain" is weakening Malaysia's ability to innovate, stay economically competitive, deliver quality public services, and achieve long-term sustainable growth. As the country pushes toward becoming a high-income, knowledge-driven economy, the steady loss of talent in these key sectors has become a serious obstacle to its progress.

Impact on STEM and Innovation Capacity

The outflow of STEM professionals weakens Malaysia's capacity for technological advancement and innovation—key drivers of economic transformation.

- A 2022 study by the Khazanah Research Institute (KRI) found that over 40% of PhD graduates from Malaysian universities emigrate, primarily for research and academic positions abroad (Khazanah Research Institute, 2022). This not only drains Malaysia of its talent but also means losing the valuable public investment poured into their higher education and research training.
- The absence of skilled scientists and engineers hampers the development of high-tech industries such as semiconductors, biotechnology, and renewable energy. For instance, Malaysia's spending on research and development (R&D) made up just 1.2% of its GDP in 2022 — falling short of the national target of 1.5% and lagging well behind regional leaders such as Singapore (2.2%) and South Korea (4.8%) (MOSTI, 2023).
- According to the World Bank (2020), brain drain in STEM fields reduces domestic innovation output, as measured by patents and scientific publications, limiting Malaysia's ability to compete in the global knowledge economy.

Without a robust domestic talent pool, Malaysia risks becoming a consumer rather than a creator of technology, undermining its ambitions under initiatives like the Twelfth Malaysia Plan (12MP) and Industry 4.0 (Economic Planning Unit, 2021).

2. Impact on Healthcare System and Public Welfare

The exodus of healthcare professionals, particularly doctors and specialists, directly affects public health outcomes and healthcare accessibility.

- As of 2023, over 2,500 Malaysian-trained doctors were registered to practice in countries like Singapore, Australia, the UK, and New Zealand (Malaysian Medical Council, 2023). This is equivalent to nearly 5% of the total medical workforce trained in the country.
- The Ministry of Health reported a doctor-to-patient ratio of 1:600 in 2023, falling short of the World Health Organization (WHO) benchmark of 1:500 (MOH, 2023). Rural and underserved areas are disproportionately affected, exacerbating health inequities.
- High workloads, limited career progression, and better remuneration abroad are key push factors. A 2018 study found that over 60% of junior doctors considered emigrating, citing burnout and lack of specialization opportunities (Ahmad et al., 2018).

This loss not only strains the public healthcare system but also increases the cost of hiring foreign medical staff and delays in service delivery, ultimately undermining national human development indicators.

3. Impact on Financial Sector and Economic Governance

The departure of finance professionals—including bankers, accountants, and financial analysts—impacts Malaysia's financial stability, investment climate, and regulatory capacity.

- Many skilled finance professionals migrate to financial hubs like Singapore, Hong Kong, and London, where salaries are significantly higher and career advancement faster (World Bank, 2020). For instance, a senior financial analyst in Singapore earns 30–50% more than a counterpart in Kuala Lumpur.
- The loss of expertise affects the sophistication of Malaysia's capital markets, risk management practices, and ability to attract foreign direct investment (FDI). According to the Central Bank of Malaysia (BNM, 2022), talent shortages in fintech, compliance, and Islamic finance are emerging constraints on sectoral growth.
- Additionally, the migration of auditors and regulatory professionals weakens corporate governance and transparency, increasing vulnerability to financial misconduct and reducing investor confidence (UNDP, 2021).

As Malaysia aims to become a regional Islamic finance hub and expand its digital economy, retaining financial talent is essential for institutional credibility and innovation.

4. Broader Implications for National Development

The cumulative effect of brain drain across sectors undermines multiple dimensions of national development:

- **Economic Growth:** Skilled workers play a crucial role in driving productivity and innovation. According to the World Bank (2023), the ongoing emigration of highly skilled Malaysians is estimated to shave off about 0.2 to 0.4 percentage points from the country's potential GDP growth each year.
- **Fiscal Burden:** Public investment in education, especially through government scholarships, is not recouped when professionals emigrate. The Public Services Commission (JPA) reported that over 30% of scholarship holders failed to return after overseas studies, representing a loss of hundreds of millions in public funds (Gill & Ravinder, 2013).
- **Social Inequality:** Brain drain exacerbates regional and urban-rural disparities, as skilled professionals leave public service roles in rural areas for opportunities abroad or in urban centers.
- **National Innovation System:** A weakened talent base reduces collaboration between universities, industry, and government, hindering the development of a cohesive national innovation ecosystem (Rasiah, 2016).

The loss of skilled professionals in STEM, healthcare, and finance sectors significantly undermines Malaysia's national development goals. It weakens innovation capacity, strains public services, and limits economic competitiveness. While some degree of international mobility is inevitable in a globalized world, the scale and persistence of brain drain reflect deeper structural issues—such as wage disparities, limited career progression, and governance concerns—that must be addressed.

To mitigate these impacts, Malaysia must adopt a comprehensive strategy that includes improving working conditions, strengthening R&D investment, enhancing meritocracy, and engaging the diaspora through knowledge transfer and return incentives. Only by retaining and leveraging its human capital can Malaysia achieve its vision of becoming a high-income, inclusive, and innovative nation.

Lessons from Nations that Reversed Brain Drain

1. India: Strategic Diaspora Engagement & Talent Fellowships

India rebranded skilled emigration from "brain drain" to "brain circulation." Programs like the Ramalingaswami Re-entry Fellowship and Ramanujan Fellowship incentivize scientists abroad to return or collaborate with Indian institutes, offering competitive salaries, research funding, and grants ([The Daily StarLinkedInNews18](#)). Additionally, the Indian diaspora is leveraged as a force for innovation and investment. Initiatives like NRI bonds, diaspora philanthropy through IDF-OI, and institutional networking have mobilized overseas professionals to contribute to national development.

2. China: Talent Recruitment Plans & Strong Infrastructure Growth

China's Thousand Talents Plan, Young Thousand Talents Plan, and Ten Thousand Talent Plan offer returnees prestigious titles, large bonuses, housing, and research support. Combined with rapid growth in R&D infrastructure and innovation parks, these reforms have attracted top-level scientists back home.

3. South Korea: Government-led Reverse Immigration Programs

South Korea's predicament started as early as 1960s and 1970s where many South Korean graduates and researchers have relocated to US, contributing to substantial loss of domestic human capital (Saxenian, 2005). Recognizing this, the government of South Korea started various strategies to encourage the return and retention of its skilled diaspora. Heavy and Chemical Industrialization Plan (HCI) was launched in 1970s which generated demand for highly skilled engineers and technical experts. The government provided generous incentives and high salaries, allocated research fundings and certain tax exemptions for Koreans who migrated overseas to return (Kim, 2017). The South Korean government then established Government-funded Research Institutes like the Korean Institute of Science and Technology (KIST) in 1966 which created attractive domestic research opportunities, drawing back many Korean scientists from abroad (Lee, 2013).

A project called Brain Korea 21(BK21) has been implemented in 1990, aimed to strengthen graduate education and research capacity at universities (Choi, 2014). Grants, scholarships and infrastructure are implemented to improve working conditions for academicians thus reducing their itching to leave for overseas. Additionally, South Korea promoted global networks and diaspora engagement, allowing Korean scientists abroad to collaborate on research and innovation projects without necessarily relocating permanently (Yoon, 2020). These policies collectively transformed South Korea from a talent-exporting to a talent-attracting country. Today, South Korea enjoys a strong domestic research and innovation ecosystem, illustrating that coordinated policies, strong institutions, and diaspora engagement can reverse brain drain effectively.

4. Ireland: Building Industry–Academia Ecosystems

Ireland reversed its brain drain during the 1990s by transforming from a net exporter to a net importer of talent. The government invested heavily in science and technology. The government offered tax incentives to attract direct foreign investment from multinational corporations (Griffin, 2013). Additionally, Ireland's membership in the European Union facilitated labor mobility and funding for research and innovation (Ni Laoire, 2008). As the economy boomed during the "Celtic Tiger" era, return migration increased significantly (Barrett & Trace, 1998).

5. Mexico & Pakistan: Contextual Repatriation Programs

Mexico has worked to turn its brain drain into a brain gain by reconnecting with its talented diaspora. Through programs like the Programa de Repatriación and Programa de Retención, the government offered returning scientists research funding, stable positions, and relocation support (Didou & Gérard, 2010). The CONACYT agency also provides grants and lab start-up support, making it easier for scholars abroad to come home (Meyer et al., 2017). Meanwhile, Red Global MX helps Mexican experts overseas share knowledge without moving back permanently (Delgado Wise & Márquez, 2007). These efforts have gradually encouraged many professionals to return.

6. Europe: Fiscal & Quality-of-Life Incentives

Europe has taken major steps to slow and even reverse brain drain by creating attractive opportunities for its skilled workers to stay or return. One key approach was building a single European labor market through the European Union’s free movement policies, which allowed professionals to work across borders without losing benefits (European Commission, 2020). The EU also launched research funding schemes like Horizon 2020 and Marie Skłodowska-Curie Actions to support early-career researchers and make European universities globally competitive (Cañibano & Woolley, 2015). At the same time, many countries introduced “return grants” and tax incentives to lure back their skilled emigrants (Docquier & Rapoport, 2012). These measures not only reduced the push factors driving people away but also created new pull factors that encouraged them to come back. As a result, Europe shifted from losing talent to fostering a more circular flow of knowledge and skills.

Key Takeaways for Malaysia

Lesson	Adaptation for Malaysia
Structured return fellowships	Offer competitive fellowships for Malaysians abroad (e.g., science and tech-focused, similar to India’s Ramalingaswami Fellowship).
Invest in research infrastructure	Expand R&D centers, innovation parks, and funding agencies to attract returning technical experts.
Leverage diaspora networks	Establish formal diaspora links, encourage investment and mentoring through diaspora-focused institutions (similar to IDF-OI).
Strengthen industry–academia collaboration	Fund joint research programs, incubators, and tech transfer platforms.
Economic incentives and supportive policies	Explore tax breaks, relocation support, and competitive salaries for returnees, especially in priority sectors.
Address cultural segments	Promote inclusive careers, especially reconciling women professionals returning (e.g. childcare support, flexible roles).

Types of Partnerships in Mitigating Brain Drain in Malaysia

To effectively address brain-drain, Malaysia can adopt a multi-pronged strategy involving diverse types of partnerships. These partnerships create enabling environments for knowledge transfer, capacity building, and retention of skilled professionals. Key types include:

1. Government-to-Government (G2G) Partnerships

Bilateral and multilateral agreements between Malaysia and countries like Singapore, Australia, and the UK can enable circular migration, joint training programs, and mutual recognition of qualifications. Such frameworks reduce permanent talent loss by encouraging temporary mobility and return pathways (IOM, 2021).

2. Academia-to-Academia Partnerships

Collaborations between Malaysian universities and global institutions support joint research, dual-degree programs, **and** visiting scholar exchanges. These initiatives enhance Malaysia’s research capacity and provide return channels for scholars abroad (Yusoff et al., 2021).

3. Industry-Academia Partnerships

Public-private partnerships that link industry with academic institutions help align curricula with industry needs,

foster innovation, and create attractive job opportunities locally. This reduces the incentive for professionals to seek better opportunities abroad (OECD, 2022).

4. Diaspora Engagement Partnerships

Engaging the Malaysian diaspora through formal partnerships with diaspora organizations and alumni networks can harness their skills for national development. Programs like mentorship schemes, investment platforms, and expert missions tap into their expertise without requiring full repatriation (Lee & Shafie, 2023).

5. International Organization Partnerships

Malaysia's collaboration with international bodies such as the World Bank, UNESCO, or IOM supports technical assistance, funding for return programs, and knowledge sharing on global best practices (World Bank, 2011).

6. University–Startup–Government (Triple Helix) Models

The “Triple Helix” model promotes innovation ecosystems involving government, academia, and startups. This fosters entrepreneurship and research commercialization, making Malaysia a more attractive destination for talent (Etzkowitz & Zhou, 2017).

CONCLUSION

Malaysia has long grappled with the challenge of brain drain, making it crucial to protect and fully utilize its human capital for lasting national progress. The steady loss of skilled professionals—especially in STEM, healthcare, and finance—has weakened the country's innovation capacity, stretched public services, and reduced its economic competitiveness (Khazanah Research Institute [KRI], 2022). Many of these talents leave due to wage gaps, limited career pathways, rigid workplaces, and socio-political concerns, while other countries offer better pay, stronger research environments, and higher quality of life (Lee & Shafie, 2023; Emir Research, 2024).

While government initiatives such as TalentCorp and the Returning Expert Programme have tried to reverse this trend, their limited results show that Malaysia needs deeper structural reforms (TalentCorp, 2020). Experiences from India, China, South Korea, Ireland, and Europe show that success comes from comprehensive strategies—building strong R&D ecosystems, fostering industry–academia collaboration, offering competitive rewards, and actively engaging the diaspora (Cañibano & Woolley, 2015; Docquier & Rapoport, 2012).

Policy Suggestions for Malaysia

- **Establish a Global Talent Return Fund:** Co-funded by government and diaspora.
- **Create Diaspora Innovation Fellowships:** Short-term expert visits and mentoring.
- **Expand Dual Appointments:** Allow Malaysian academics abroad to hold part-time local posts.
- **Launch ASEAN Brain Circulation Program:** Talent mobility within Southeast Asia.

If Malaysia embraces these approaches, it can shift from losing talent to circulating it, turning brain drain into brain gain. Ultimately, making talent retention and attraction a national priority is essential if Malaysia is to become a high-income, knowledge-driven, and globally competitive economy (Yusoff & Kaur, 2014).

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