

¹Khairul
Zahreen Mohd
Arof

²Hafiza Abas

³Amy Poh Ai
Ling,

⁴Yusra Binti
Zulkifli

⁵Noorziza Abdul
Aziz

Addressing Challenges in Bridging Japanese Research Culture with Malaysian Higher Education for Postgraduates Studies



Abstract: - This research article examines the challenges in bridging Japanese research culture with the Malaysian higher education system, specifically focusing on postgraduate studies. It investigates various aspects, including research practices, institutional frameworks, mentor-student relationships, collaboration patterns, funding mechanisms, and publication norms. The investigation is done via literature review and interviews with 25 subject matter experts. This research found that Japanese research practices emphasise meticulous methodologies, while Malaysian practices prioritise local challenges. Institutional frameworks in both countries highlight academic excellence, with Japan emphasising hierarchy and Malaysia emphasising collaboration. Mentor-student relationships in Japan tend to be hierarchical, whereas, in Malaysia, they are more egalitarian. Collaboration is valued in both countries, with Japan emphasising interdisciplinary projects and industry partnerships. Funding mechanisms differ, with Japan benefiting from larger budgets and established agencies. Both countries recognise reputable journals, but Malaysia also values local publications.

Keywords: Bridging; Challenges; Japanese Research Culture; Malaysia; Postgraduate Studies

I. INTRODUCTION

This research article examines challenges in bridging Japanese research culture with the Malaysian higher education system, focusing on postgraduate studies. It explores research practices, institutional frameworks, mentor-student relationships, collaboration patterns, funding mechanisms, and publication norms. Japanese research practices emphasise meticulous methodologies [1],[2],[3], while Malaysian practices prioritise local challenges. Institutional frameworks in both countries emphasise academic excellence, with Japan emphasising hierarchy [4] and Malaysia emphasising collaboration. Mentor-student relationships in Japan are hierarchical [5], while in Malaysia, they are more egalitarian [6]. Collaboration is valued in both countries, with Japan emphasising interdisciplinary projects and industry partnerships. Funding mechanisms differ, with Japan having larger budgets and established agencies. Both countries recognise reputable journals, but Malaysia also values local publications [7]. Open access is gaining prominence.

II. LITERATURE REVIEW

A. Research Practices

^{1,4}School of Architecture and Built Environment, Faculty of Engineering, Technology and Built Environment, UCSI University, UCSI Heights, Jalan Puncak Menara Gading, Taman Connaught, 56000 Cheras, Wilayah Persekutuan Kuala Lumpur, MALAYSIA,

²Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia, Jalan Sultan Yahya Petra, 54100 Kuala Lumpur, MALAYSIA

³Department of Technology Management for Innovation, Graduate School of Engineering, The University of Tokyo, Bunkyo-ku, Tokyo, 113-8656, JAPAN,

⁵Department of Electrical Engineering, Politeknik Sultan Idris Shah, Sungai Lang, 45100 Sungai Ayer Tawar, Selangor, MALAYSIA

[1] khairulzahreen@gmail.com [2] hafiza.kl@utm.my [3] amypoh@tmi.t.u-tokyo.ac.jp,

[4] yusra@ucsiuniversity.edu.my [5] noorziza@psis.edu.my

Copyright © JES 2024 on-line : journal.esrgroups.org

In Japan, research practices often prioritise meticulous attention to detail, precision, and rigorous methodology [8]. Researchers in Japan tend to adopt a systematic and thorough approach to their studies, paying close attention to every aspect of the research process. This includes designing experiments or investigations with well-defined objectives, using appropriate research methods, collecting, and analysing data meticulously, drawing accurate and reliable conclusions, and infusing new ideas [9]. Japanese researchers often embrace interdisciplinary approaches, which involve integrating knowledge and methodologies from multiple disciplines to tackle complex research problems. This interdisciplinary approach allows researchers to explore different perspectives [10], draw from various fields of study, and produce innovative and holistic research outcomes. Furthermore, the research practices in Japan are characterised by a strong emphasis on the quality of research. Researchers strive for excellence and aim to produce high-quality work that can contribute to scientific advancements and knowledge. They often engage in peer-reviewed publications, presenting their research findings at conferences and participating in academic collaborations to ensure that their work undergoes rigorous evaluation and scrutiny.

In Malaysia, research practices share similar traits with Japan, emphasising rigorous methodologies and attention to detail. However, more focus may be on practical applications and addressing local challenges. Researchers in Malaysia often work towards finding solutions to problems relevant to the local context, such as socio-economic issues, environmental challenges, or cultural factors. They may employ research practices that directly impact improving the quality of life or addressing specific needs within Malaysian society. Researchers in both countries also recognise the importance of ethical considerations in research practices. They adhere to ethical guidelines and principles to ensure the well-being and rights of participants, the accuracy and integrity of data, and the responsible dissemination of research findings. It's worth mentioning that research practices can vary among different disciplines and research fields within Japan and Malaysia. Natural sciences, engineering, and medicine disciplines may have more standardised laboratory-based research practices. In contrast, social sciences and humanities may adopt diverse research methods, including surveys, interviews, and archival research.

B. Institutional Frameworks

Institutional frameworks refer to the organisational structures, policies, and systems that govern postgraduate studies within academic institutions. In Japan, postgraduate studies are typically conducted within universities and research institutes, the primary institutions for advanced education and research. These institutions often have established hierarchies and structures that guide the organisation and administration of postgraduate programs. A strong emphasis on academic excellence and reputation characterises the institutional framework in Japan. Universities are ranked based on research output, faculty expertise, and academic achievements. Higher-ranked universities tend to have more resources, prestigious faculty members, and better research facilities. Professors and senior researchers play significant roles in guiding and overseeing postgraduate studies within this framework. They act as mentors or supervisors to students, providing guidance and support throughout their research journey. The relationship between mentors and students is often hierarchical and formal, with students expected to demonstrate deference and respect towards their mentors. The institutional framework in Japan also supports collaborative research efforts [11]. Universities and research institutes often foster partnerships and collaborations with other institutions, both domestically and internationally. These collaborations enable researchers to access additional resources, expertise, and diverse perspectives, leading to enhanced research outcomes.

Similarly, in Malaysia, postgraduate studies are predominantly conducted within universities and research institutes. However, the institutional framework may exhibit some differences compared to Japan. While there is still a focus on academic excellence, the hierarchical structure within institutions may be less pronounced, with a greater emphasis on collaboration and teamwork. Malaysian institutions increasingly emphasise interdisciplinary research and collaboration across different academic disciplines. This approach encourages researchers and postgraduate students to work together to address complex research questions and challenges, drawing on diverse expertise and perspectives. Malaysian universities often strive to foster a supportive and inclusive academic environment. They may provide resources such as research grants, scholarships, and mentorship programs to facilitate postgraduate studies. The aim is to cultivate a conducive learning and research environment that nurtures postgraduate students' intellectual growth and professional development. Moreover, Malaysian institutions

recognise the importance of engaging with industry and addressing local research needs. They may establish industry partnerships, research centres, or innovation hubs to facilitate knowledge transfer and the application of research outcomes to practical settings. This framework encourages researchers and postgraduate students to contribute to the socio-economic development of Malaysia by addressing relevant local challenges. It is important to note that institutional frameworks can vary among universities and research institutes in Japan and Malaysia. Different institutions may have distinct policies, structures, and resources that shape their postgraduate programs. Therefore, it is advisable for prospective postgraduate students to thoroughly research and consider the specific institutional frameworks of the institutions they are interested in to align with their academic and research goals.

C. Mentor-Student Relationships

Mentor-student relationships in the context of postgraduate studies refer to the dynamic and interactive connections between experienced mentors (supervisors) and postgraduate students. Here's a more detailed academic explanation of mentor-student relationships in the context of postgraduate studies in Japan and Malaysia. In Japan, a hierarchical and formal structure characterises mentor-student relationships in postgraduate studies. Professors and senior researchers often assume the role of mentors and provide guidance and supervision to postgraduate students. The mentor-student relationship is typically based on mutual respect, trust, and a shared commitment to academic excellence. Mentors in Japan play a central role in guiding and overseeing their students' research progress and career development. They provide intellectual guidance, offer expertise in the research field, and assist students in developing research proposals, designing experiments, and analysing data. Mentors also provide critical feedback and constructive criticism to help students refine their research methodologies and enhance the quality of their work. In the Japanese context, there is an expectation that postgraduate students show deference and respect towards their mentors. This includes adhering to the mentor's guidance, seeking approval for important decisions, and demonstrating a diligent work ethic. This hierarchical relationship is seen to ensure the transmission of knowledge, uphold academic standards, and maintain discipline within the research community.

In Malaysia, the mentor-student relationship in postgraduate studies may be more informal and collaborative compared to Japan. While there is still respect for mentors, the relationship tends to be characterised by a greater sense of equality and autonomy for postgraduate students. Mentors in Malaysia often encourage independent thinking, critical inquiry, and self-directed learning among their students. In this context, mentors act as facilitators, offering support, guidance, and advice to postgraduate students while encouraging them to take ownership of their research projects. They foster an environment that promotes open communication, mutual learning, and the development of research and critical thinking skills. Mentors in Malaysia may also encourage students to engage in interdisciplinary collaborations and seek diverse perspectives to enrich their research outcomes. It is worth noting that mentor-student relationships can vary based on individual mentorship styles, the specific discipline or research field, and the institutional culture within Japan and Malaysia. Some mentors may adopt a more hands-on approach, providing detailed instructions and closely monitoring students' progress, while others may foster a more independent and autonomous learning environment. Regardless of the context, effective mentor-student relationships are characterised by regular communication, constructive feedback, and a supportive learning environment. Such relationships contribute to postgraduate students' intellectual growth, professional development, and research productivity, enabling them to excel in their respective fields of study.

D. Collaboration Patterns

Collaboration patterns in the context of postgraduate studies refer to how researchers and institutions collaborate and work together to advance knowledge and achieve research goals. In Japan, collaboration is highly valued, and researchers actively engage in collaborative projects with other institutions or industry partners. Collaboration is seen to enhance research outcomes, broaden perspectives, and leverage resources [12]. Researchers in Japan often form interdisciplinary teams to tackle complex research problems that require expertise from multiple fields. Collaborative efforts in Japan can take various forms, including joint research projects, academic networks, consortiums, and research alliances. These collaborations may involve researchers from different universities,

research institutes, or even international partners. The aim is to combine knowledge, skills, and resources to address research questions and produce impactful research outcomes comprehensively. Furthermore, collaborations in Japan are often driven by a culture of shared knowledge and mutual learning. Researchers are encouraged to exchange ideas, participate in academic conferences and workshops, and engage in joint publications. Collaborations also extend to the industry sector, where researchers partner with businesses and organisations to address real-world challenges, transfer knowledge, and promote technology transfer. On the one hand, there were strict regulations for cooperation between universities and industry. On the other, cooperation between industry and government was active through the widespread public laboratories in Japan [13].

In Malaysia, collaboration between researchers and institutions is also encouraged [14]. However, there may be a greater emphasis on national collaborations and addressing local research needs. Malaysian researchers often collaborate with fellow researchers and institutions within the country to address specific research topics or regional issues. This focus on local collaborations allows researchers to contribute to national development priorities, address societal challenges, and enhance the well-being of local communities. Collaboration patterns in Malaysia also emphasise interdisciplinary approaches, recognising the importance of integrating knowledge from diverse fields to tackle complex issues. Researchers may collaborate across disciplines such as science, technology, social sciences, and humanities to provide comprehensive solutions to societal problems. Additionally, collaborations in Malaysia may involve partnerships between academia, industry, and government entities. These partnerships aim to foster knowledge transfer, promote innovation, and support the application of research outcomes in practical settings. Malaysian institutions actively engage with industry partners to ensure that research findings are translated into impactful actions and contribute to the country's economic growth and development. It's important to note that collaboration patterns can vary depending on the specific discipline, research field, and institutional context within Japan and Malaysia. The natural sciences, engineering, and medicine disciplines may have established collaborative networks and practices. In contrast, social sciences and humanities may have different modes of collaboration, such as participatory research or community-based initiatives.

E. Funding Mechanisms

Funding mechanisms in the context of postgraduate studies refer to the various sources and mechanisms through which financial support is provided for research and education. In Japan, research funding for postgraduate studies is often offered through government agencies, such as the Japan Society for the Promotion of Science (JSPS) or other ministries responsible for science and education. These funding agencies allocate grants and scholarships to support research projects, doctoral studies, and academic initiatives. The funding may cover research expenses, stipends for living expenses, travel grants, and laboratory equipment, among other needs. Additionally, competitive scholarships are available in Japan for international students pursuing postgraduate studies [15]. These scholarships, such as the Monbukagakusho Scholarship (MEXT), provide financial support to international students for their tuition fees, living expenses, and research-related costs. Furthermore, industry collaborations play a significant role in funding mechanisms in Japan. Research institutions often partner with industry sectors, such as technology companies or pharmaceutical companies. These collaborations may involve joint research projects, funding for specific research areas, or industry-sponsored scholarships. Industry collaborations not only provide financial support but also offer opportunities for students to gain practical experience and apply their research findings in real-world contexts.

In Malaysia, research funding for postgraduate studies is typically provided through government agencies such as the Ministry of Higher Education, Ministry of Science, Technology, and Innovation, or other research funding bodies. These agencies allocate research grants and scholarships to support research projects, academic initiatives, and postgraduate education. The Malaysian government prioritises research and development as part of its national development agenda. As such, funding mechanisms in Malaysia often focus on addressing national research priorities, socio-economic challenges and promoting innovation. Researchers and postgraduate students are encouraged to align their research projects with these national priorities to enhance their chances of securing funding. Moreover, industry collaborations and partnerships are also significant funding sources in Malaysia.

Research institutions actively engage with industry partners to ensure the financing of research projects or to establish research chairs and centres. These collaborations provide financial support, access to industry expertise and resources, and opportunities for students to gain practical experience through internships or industry-sponsored research projects. In addition to government and industry funding, Malaysian universities and research institutes may have their own internal funding mechanisms. These institutions may provide research grants, fellowships, or scholarships to support postgraduate students' research and education. It is important to note that funding mechanisms can vary among different institutions, research fields, and individual research projects within Japan and Malaysia. The availability and eligibility criteria for funding can differ, and competition for funding may be intense. Therefore, postgraduate students are encouraged to actively seek information on funding opportunities, explore different avenues, and consult with their academic advisors or relevant funding agencies to secure financial support for their studies and research.

F. Publication Norms

Publication norms in the context of postgraduate studies refer to the established standards, practices, and conventions governing the dissemination of research findings through scholarly publications. In Japan, publication norms strongly emphasise publishing research findings in prestigious international journals. Researchers in Japan strive to publish their work in high-impact factor journals to enhance their academic reputation and contribute to advancing their respective fields. High-impact factor journals are widely recognised and cited within the academic community. The publication process in Japan typically involves rigorous peer review, where experts in the field critically evaluate the research methodology, results, and conclusions before accepting a paper for publication. This peer review process ensures the research's quality and validity. Researchers in Japan are expected to adhere to ethical guidelines, maintain research integrity, and avoid practices such as plagiarism or data manipulation. Furthermore, researchers in Japan often present their work at academic conferences and symposia to share their findings with the scientific community. Conference presentations provide an opportunity for researchers to receive feedback, engage in discussions, and establish collaborations with fellow researchers.

In Malaysia, publication norms also emphasise publishing research in reputable journals. However, more recognition may be given to local or regional journals that address specific research topics or regional issues. Malaysian researchers are encouraged to contribute to these local journals, as they provide a platform for disseminating contextually relevant research that can address the unique challenges and needs of the country or region. Similar to Japan, the publication process in Malaysia involves rigorous peer review, ensuring the quality and integrity of the research. Researchers are expected to adhere to ethical standards and publication guidelines set by journals and academic institutions. Moreover, researchers in Malaysia are encouraged to present their work at national and international conferences to showcase their research findings, receive feedback, and network with other researchers. Conference presentations provide opportunities for knowledge exchange, collaboration, and visibility within the academic community. It's important to note that both Japan and Malaysia recognise the significance of open-access publications. Open-access journals allow unrestricted access to research articles, promoting the broader dissemination of knowledge. Researchers in both countries increasingly consider open-access options when choosing where to publish their work. While these publication norms are prevalent in Japan and Malaysia, it is essential to consider that publication practices vary among disciplines, research fields, and academic institutions. Some fields may have specific publication practices, such as conference proceedings, book chapters, or monographs, that are highly valued in addition to journal articles. Researchers in both Japan and Malaysia are encouraged to stay updated with evolving publication norms, follow best practices, and consult with their advisors and peers to ensure compliance with ethical standards and maximise the impact of their research findings.

III. METHODOLOGY

This paper uses a case study approach to examine challenges in bridging Japanese research culture with the Malaysian higher education system in postgraduate studies, focusing on research practices, institutional frameworks, mentor-student relationships, collaboration patterns, funding mechanisms, and publication norms.

Interviews with subject matter experts (SMEs) provide in-depth insights. Multiple representative cases from diverse academic disciplines and institutions are selected to capture the complexities of the Japanese research culture. Qualitative methods facilitate detailed insights and subjective experiences of participants. Interviews with 25 subject matter experts (SMEs) both in Japan and Malaysia provide in-depth insights. The SMEs are from public and private institutions with extensive knowledge and diverse backgrounds and are purposively sampled. Semi-structured interviews are conducted to collect primary data, encouraging participants to share their experiences and perspectives. Thematic analysis is used to analyse interview data. Recurring themes and patterns related to the research culture aspects are identified through careful review and coding of transcripts. Findings and conclusions are generated through systematic analysis.

IV. RESULT AND DISCUSSION

A. *Research Practices*

The findings reveal several significant challenges the Malaysian research community faces compared to Japan for postgraduate studies. First, Malaysia experiences limited research funding, which hampers the scale and scope of research projects compared to their counterparts in Japan. Second, there is a lack of advanced research facilities and infrastructure in Malaysia, which may impede cutting-edge research and innovation.

Third, the country struggles with inadequate resources and equipment for large-scale projects, potentially hindering the execution of ambitious research initiatives. Moreover, Malaysian researchers encounter difficulties replicating certain research studies conducted in Japan due to resource constraints.

Finally, implementing specific methodologies or techniques that require sophisticated equipment or extensive funding constrains Malaysian researchers. Addressing these disparities is crucial for Malaysia to bolster its research capabilities, promote scientific progress, and foster international collaborations to bridge the gap with Japan's research advancements.

B. *Institutional Frameworks*

The findings related to institutional frameworks highlight critical challenges within Malaysia's research landscape compared to Japan for postgraduate studies. Firstly, the limited research funding in Malaysia puts constraints on the entire research ecosystem, impacting the capacity of institutions and researchers to undertake innovative and ground-breaking projects. This shortage of funding may hinder the development of cutting-edge research and limit the nation's ability to address complex societal and scientific challenges effectively.

Secondly, Malaysia's lack of advanced research facilities and infrastructure creates disparities in research capabilities, potentially preventing researchers from conducting high-impact studies and collaborations. Thirdly, insufficient resources and equipment for large-scale projects pose a considerable obstacle to conducting comprehensive and ambitious research initiatives in Malaysia. As a result, opportunities for significant breakthroughs may be missed. Additionally, the difficulty in replicating certain research studies conducted in Japan due to resource constraints may impede Malaysia's ability to validate and build upon existing scientific findings, potentially slowing down research progress.

Lastly, the constraints in implementing specific methodologies or techniques that require sophisticated equipment or extensive funding can limit Malaysia's involvement in particular research domains, hindering the country's potential for contributing to global scientific advancements. To overcome these challenges, Malaysia needs to strengthen its institutional frameworks, promote collaboration between academia and industry, and seek strategic partnerships to enhance research funding and infrastructure, fostering an environment conducive to scientific innovation and progress.

C. *Mentor-Student Relationships*

The findings concerning mentor-student relationships shed light on the complexities and challenges arising from cultural differences between Japan and Malaysia for postgraduate studies. Firstly, there exist distinct cultural disparities in how mentor-student relationships are perceived and approached. Japan embraces hierarchical structures and collaborative mentorship, while Malaysia leans towards more egalitarian and individualistic practices. These differences may lead to misunderstandings and difficulties in establishing effective mentor-student dynamics. Secondly, resistance to change within Malaysian academic institutions, entrenched by long-established practices, cultural norms, and hierarchical structures, can hinder the adoption of Japanese-style mentorship methods. The reluctance to deviate from traditional approaches may impede the potential benefits of incorporating more collaborative and supportive mentoring practices.

Lastly, the misalignment of cultural and institutional expectations when implementing mentorship practices from Japan in Malaysia can create challenges for both mentors and students. These misalignments may result in unmet expectations, communication gaps, and reduced effectiveness of mentorship, impacting the overall academic experience and student development. It is essential to promote cross-cultural understanding, encourage open dialogue, and explore adaptable mentorship models that combine the strengths of both cultures to foster successful mentor-student relationships in Malaysian academic settings.

D. Collaboration Patterns

The findings highlight significant challenges faced by researchers in Malaysia for postgraduate studies concerning networking and collaboration opportunities. Firstly, there is a notable scarcity of networking avenues for researchers to connect and collaborate across disciplines and institutions. This limitation hinders the exchange of ideas, expertise, and resources, which are crucial for fostering innovative interdisciplinary research.

Secondly, the absence of established collaborative frameworks or platforms for interdisciplinary research further compounds the issue. Without well-defined structures to facilitate cooperation between different fields, researchers may struggle to effectively bridge the gaps and integrate knowledge from various disciplines. Consequently, this lack of coordination may hinder the progress of interdisciplinary projects in the country.

Lastly, the difficulty initiating and sustaining collaborative projects can be attributed to inadequate networking and collaborative infrastructure. Researchers may face obstacles in identifying potential collaborators and finding appropriate platforms to nurture long-term partnerships, inhibiting the growth and impact of collaborative research efforts. It is imperative for Malaysia to invest in building robust networking platforms, encouraging interdisciplinary research initiatives, and establishing collaborative frameworks that promote effective knowledge sharing and foster a culture of cooperation among researchers and institutions.

E. Funding Mechanisms

The findings regarding funding mechanisms highlight significant disparities and challenges faced by researchers in Malaysia for postgraduate studies compared to Japan. Firstly, the economic differences between the two countries pose a hurdle in directly adopting Japanese funding mechanisms in Malaysia, as Japan enjoys greater financial resources for research.

Secondly, Malaysia experiences a limited availability of research funding sources, reducing the opportunities for researchers to secure financial support for their projects compared to their Japanese counterparts. Thirdly, the misalignment of research funding priorities between Japan and Malaysia further complicates the matter, as funding in Japan may be tailored to national research agendas that differ from those in Malaysia.

Additionally, the differences in research ecosystem and infrastructure result in Japan having more well-established resources, whereas Malaysia may struggle with limited infrastructure, impacting its research capabilities and attractiveness for funding. Moreover, the variations in administrative and governance frameworks for research funding necessitate Malaysian researchers to adapt to different procedures and guidelines when seeking funding.

opportunities. To address these challenges, capacity-building efforts are required to enhance Malaysian researchers' skills in grant proposal writing, project management, and research administration, enabling them to compete effectively for funding opportunities and elevate the quality and impact of their research projects.

F. Publication Norms

The findings related to publication norms in Malaysia highlight two significant challenges researchers face in postgraduate studies. Firstly, language barriers can impede effective communication of research findings. Many international journals require articles written in English, which may challenge some Malaysian researchers with limited English proficiency. This limitation could hinder their ability to publish in reputable international journals and reach a broader audience.

Secondly, limited access to international publishing platforms is a concern. Malaysian researchers may encounter difficulties accessing and submitting to renowned international journals due to subscription costs or lack of institutional resources. This restriction could hinder their ability to disseminate their research globally and contribute to the broader scientific community.

To address these challenges, efforts should be made to improve English language proficiency among researchers, provide more resources for accessing international journals, and support open-access initiatives to enhance the visibility and impact of Malaysian research on the global stage.

G. Institutional Resistance to Change

The findings regarding institutional resistance to change shed light on several key factors that hinder the adoption of new research practices in Malaysia for postgraduate studies. Firstly, resistance to change is observed among faculty members, administrators, and other stakeholders accustomed to established practices. This resistance may arise from a sense of comfort and familiarity with the existing systems, making it challenging to embrace new approaches.

Secondly, fear of the unknown and concerns about how new practices may impact existing processes contribute to the resistance. Additionally, there may be a lack of awareness or understanding of the potential benefits that new research practices could bring to the academic community. Thirdly, the differences in institutional frameworks and structures between Japan and Malaysia can pose obstacles. This includes variations in the roles, expectations, and power dynamics in mentor-student relationships.

Finally, balancing the hierarchical expectations from the Japanese model with the desire of Malaysian students for autonomy and participatory decision-making adds complexity to adopting new research practices. Overcoming these barriers requires open dialogue, comprehensive communication about the advantages of change, and the development of tailored strategies to adapt and integrate beneficial aspects of new research practices into the Malaysian academic environment while respecting its unique cultural and institutional context.

H. Research Focus and Contextual

The findings regarding research focus and contextual considerations reveal essential aspects that need to be addressed when integrating research practices from Japan into the Malaysian for postgraduate studies setting. Firstly, there may be a misalignment between the research practices commonly employed in Japan and Malaysia's research focus and priorities. It is crucial to bridge this gap by ensuring that research practices adopted from Japan align with Malaysia's specific needs and development goals.

Secondly, researchers must adapt these practices to address local challenges and contribute effectively to national development objectives. The research conducted in Malaysia should be contextually relevant, addressing issues of significance to the country's social, economic, and environmental contexts.

Lastly, it is vital to assess the suitability and relevance of the research practices from Japan to the Malaysian context to ensure they can be effectively applied and integrated into the local research landscape. This requires careful consideration of cultural, institutional, and practical factors to optimise the benefits and impact of adopting research practices from Japan in Malaysia.

V. CONCLUSION

This research paper investigates the challenges of integrating Japanese research culture with the Malaysian higher education system, focusing on postgraduate studies. Using a case study approach and qualitative methods, the study examines research practices, institutional frameworks, mentor-student relationships, collaboration patterns, funding mechanisms, and publication norms. Interviews with 25 subject matter experts from Japan and Malaysia provide in-depth insights, highlighting significant disparities between the two countries.

The findings reveal that Malaysia faces limited research funding, a lack of advanced research facilities, and difficulties replicating studies conducted in Japan. Institutional resistance to change, cultural disparities in mentor-student relationships, and a scarcity of networking avenues for collaboration are also identified as challenges. To overcome these obstacles, the paper recommends strengthening research capabilities through increased funding and collaboration between academia and industry. Promoting cross-cultural understanding, enhancing mentorship models, and investing in networking platforms will foster effective collaboration. Improving English language proficiency, expanding access to international publishing platforms, and addressing institutional resistance will enhance the dissemination of research findings. These measures aim to bridge the gap between the research cultures and contribute to Malaysia's scientific progress and development goals.

ACKNOWLEDGEMENT

The research team would like to thank the Toshiba International Foundation (TIFO) for their generous financial support, which made this investigation into Japanese research culture among postgraduate studies possible. They also express appreciation to the research fund management team at the Institute of Electrical and Electronics Engineers Malaysia Kuala Lumpur Subsection for their expertise in administering the grant and ensuring the smooth execution of the project.

The team is grateful for the support and assistance received from several institutions throughout the research. UCSI University granted access to their facilities, including libraries and research databases, greatly facilitating data analysis. Universiti Teknologi Malaysia provided access to their facilities, creating a conducive research environment. Meiji University offered valuable insights and guidance on institutional frameworks and policies related to research culture among postgraduate studies in Japan, enhancing the depth and accuracy of the findings. Tokyo University collaborated by facilitating interviews with subject matter experts, allowing the team to gather diverse and rich perspectives.

REFERENCES

- [1] Dresner, S. M., Lamb, P. J., Bennett, M. K., Hayes, N., & Griffin, S. M. (2001). The pattern of metastatic lymph node dissemination from adenocarcinoma of the esophagogastric junction. *Surgery*, *129*(1), 103-109.
- [2] Arani, M. R. S., Fukaya, K., & Lassegard, J. P. (2010). "Lesson Study" as professional culture in Japanese schools: An historical perspective on elementary classroom practices. *Nichibunken Japan Review*, 171-200.
- [3] Ghosh, S. K. (2022). The evolution of epistemological methodologies in anatomy: From antiquity to modern times. *The Anatomical Record*, *305*(4), 803-817.
- [4] Brundiers, K., Barth, M., Cebrián, G., Cohen, M., Diaz, L., Doucette-Remington, S., ... & Zint, M. (2021). Key competencies in sustainability in higher education—toward an agreed-upon reference framework. *Sustainability Science*, *16*, 13-29.

- [5] Gambier, S., & Eclapier, M. (2023). Business Leadership Culture in France and Japan: Studying Differences and Similarities between France and Japan Business Leadership Culture.
- [6] Wong, R. M. M., Owuamalam, C. K., & Stewart-Williams, S. (2023). Right-leaning egalitarians are just as susceptible to social justice-induced product patronage! Evidence from the US and Malaysia. *Acta psychologica*, 237, 103935.
- [7] Abdul Rahim, H., & Jalalian Daghigh, A. (2020). Locally-developed vs. global textbooks: An evaluation of cultural content in textbooks used in ELT in Malaysia. *Asian Englishes*, 22(3), 317-331.
- [8] Roden, D. T. (2022). *Schooldays in imperial Japan: A study in the culture of a student elite*. Univ of California Press.
- [9] Barriga, M. (2021). Reorienting Japanese Studies with Views from the Nan'yō. *New Voices in Japanese Studies*. <https://doi.org/10.21159/nvjs.13.d-01>.
- [10] Villeneuve, D., Duran-Rodas, D., Ferri, A., Kuttler, T., Magelund, J., Mögele, M., Nitschke, L., Servou, E., & Silva, C. (2019). What is Interdisciplinarity in Practice? Critical Reflections on Doing Mobility Research in an Intended Interdisciplinary Doctoral Research Group. *Sustainability*. <https://doi.org/10.3390/su12010197>.
- [11] Dodgson, M. (2018). *Technological collaboration in industry: strategy, policy and internationalisation in innovation* (Vol. 11). Routledge.
- [12] Slade, E., Kern, P. A., Kegebein, R. L., Liu, C., Thompson, J. C., Kelly, T. H., ... & Surratt, H. L. (2023). Collaborative team dynamics and scholarly outcomes of multidisciplinary research teams: A mixed-methods approach. *Journal of Clinical and Translational Science*, 7(1), e59.
- [13] Yoda, N., & Kuwashima, K. (2020). Triple Helix of University–Industry–Government Relations in Japan: Transitions of Collaborations and Interactions. *Journal of the Knowledge Economy*, 11, 1120-1144. <https://doi.org/10.1007/S13132-019-00595-3>.
- [14] Munusamy, M. M., & Hashim, A. (2019). Internationalisation of higher education in Malaysia: Insights from higher education administrators. *AEI INSIGHTS*, 5(1), 21-39.
- [15] Edwards, S., & Ashida, A. (2021). Higher education in Japan: internationalisation, the Sustainable Development Goals and survivability. *International Journal of Comparative Education and Development*, 23(2), 104-119.

AUTHORS PROFILE



Ts. Dr. Khairul Zahreen Mohd Arof currently holds a multifaceted role, serving at Praxis, Industry and Community Engagement (PICE) within the Centre of Excellence for Research, Value Innovation, and Entrepreneurship (CERVIE). Simultaneously, he assumes the position of a lecturer at the School of Architecture and Built Environment (SABE) within the Faculty of Engineering (FETBE) at Technology and Built Environment, UCSI University. In addition to his academic responsibilities, Khairul Zahreen Mohd Arof is entrusted with the pivotal role of Country Director at Beyoğlu Çikolata in Malaysia, overseeing Production, Wholesale, Retail, and Trade (WRT). Furthermore, he has achieved the distinction of being promoted to Project Director (Civil & Structure) at the Engineering Unit of Koperasi Komuniti Berhad. His active involvement in research and consultancy is exemplified by his appointment as the Project Manager at the Green Cities and Construction Research Group. Khairul Zahreen extends his contributions beyond academia through active engagement in social responsibility initiatives, particularly for school leavers and the general public. Notably, he holds the esteemed position of Humanitarian Activities and Student Activities Coordinator at IEEE Malaysia Kuala Lumpur Subsection, Institute of Electrical and Electronics Engineers. His diverse expertise spans the areas of Material and Structure, Project Management, Organisational Performance, Leadership Behaviour, and Urban Farming, reflecting a comprehensive and impactful engagement in both academic and professional realms.



Ts. Dr. Hafiza Abas is a seasoned academic, bringing two decades of invaluable experience to her role as a Senior Lecturer at the Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia (UTM) in Kuala Lumpur. Her academic journey has been marked by unwavering dedication and a thirst for knowledge, as evidenced by her impressive educational background. Dr. Hafiza holds a Ph.D. in Information Science from Universiti Kebangsaan Malaysia (UKM), complemented by an MSc in Information Technology from Universiti Putra Malaysia (UPM) and a BIT (Hons) in Information Technology from Universiti Utara Malaysia. Over the years, she has secured an impressive thirty research grants, a testament to her expertise and commitment. These grants have been awarded not only by UTM but also by various government agencies and the Malaysian government, including the prestigious Fundamental Research Grant Scheme (FRGS) and the Exploratory Research Grant Scheme (ERGS). Dr. Hafiza thrives on collaboration and actively collaborates with academic scholars from prominent Malaysian universities, such as UiTM, UIS, UKM, and UniMaP, thereby enriching the academic discourse in her field. Her work has been showcased at numerous local and international conferences, earning her recognition and respect in the global academic community. Her Scopus Author ID (53263105200) and ResearcherID (A-2733-2014) further underscore her contributions to the field of Information Science.



Dr. Amy Poh Ai Ling After receiving her first Ph.D. in Advanced Mathematical Sciences from Meiji University in 2012, she conducted research at the University of Tokyo, the California Institute of Technology, the Hong Kong Baptist University, the Taiwan Tamkang University, and the University of Science Malaysia as a postdoctoral researcher of the Japan Society for the Promotion of Science (JSPS). She then became a senior lecturer at the University of Technology Malaysia. In 2019, she received her second Ph.D. in Natural Science and Technology from Okayama University. She was honored with three Student Role Model Awards upon completing her B.B.A., M.Sc., and Ph.Ds. She has won three Science Awards from America, Japan, and Malaysia, as well as seven scholarships. She coordinates multidisciplinary research with experts from seven countries and has co-published one book, one chapter, and 15 manuscripts in prestigious journals. Her research area is social science, including next-generation power grids, information systems security engineering, data processing, statistical modeling and analysis, quality and productivity improvement, economics, and business administration. She is currently a JSPS Special Research Fellow at The University of Tokyo, where she is developing a model for assessing factors that influence public security acceptance in promoting smart grids.



Yusra Zulkifli has been fascinated with traditional arts and crafts. She graduated from the Architectural Association School of Architecture with her final year thesis on a new reading of ornamentation for the 21st century. The thesis discusses how new technologies can create a new reading of ornamentation for the 21st century. After being involved in both practice and teaching in academia concurrently for more than ten years, she is now a dedicated lecturer at the School of Architecture and Built Environment (SABE) at UCSI University. She is currently undertaking Masters in Arts at University Malaya with her thesis subject on Bajau pandanus mats. In addition, she enjoys teaching history and theories, and her design studio focuses on the arts and crafts movement. A registered member of professional bodies of Board of Architects (LAM) and Malaysian Institute of Architects (PAM).



Noorziza Abdul Aziz, a dedicated lecturer at Politeknik Sultan Idris Shah for over two decades, showcases unwavering commitment and excellence in digital electronics and semiconductor devices within the Department of Electrical Engineering. Her substantial research contributions, concentrated in these domains, mark her as a seasoned academician, advancing knowledge expansion. Beyond the classroom, Noorziza's diverse publications reflect her profound insights, attesting to both intellectual acumen and a steadfast commitment to the progression of digital electronics and semiconductor devices understanding. In the dynamic realm of electrical engineering, she stands as an epitome of innovation and academic leadership, shaping the intellectual landscape of Politeknik Sultan Idris Shah. Serving as an inspiration and mentor, her influence extends beyond her current role, leaving an indelible mark on the broader academic community.