



Malaysian Graduates Employability in Post Covid-19: A Swot Analysis

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ABSTRACT

The widespread impact of the COVID-19 pandemic has disrupted numerous facets of life, including education, career paths, and employment opportunities, affecting individuals, communities, and economies worldwide. This study delves into the realm of employability among Malaysian graduates post the COVID-19 crisis. Malaysia, known for its distinct socio-economic landscape, offers a captivating backdrop to explore the diverse challenges and opportunities faced by graduates seeking stable and meaningful employment in the aftermath of the pandemic. Employing SWOT analysis, this research comprehensively investigates the employability experiences of recent Malaysian graduates by drawing insights from a focused selection of literature concerning graduates' employment and its interplay with the Covid-19 situation. The study's outcomes highlight the critical need for adaptive policies and educational initiatives tailored to equip graduates with the essential skills and adaptable mindset required to excel in an evolving post-pandemic job market. Above all, the study underscores the significance of understanding and addressing the unique nuances of the Malaysian context while offering insights that can potentially benefit other regions grappling with similar employability challenges triggered by the pandemic's aftermath.

1. Introduction

In the wake of the Covid-19 pandemic, employability among Malaysian graduates has become a pressing issue, presenting both significant hurdles and unexplored opportunities. Despite Malaysia's history of producing numerous graduates, the post-pandemic scene presents unique barriers that impede their entry into the job market. This challenge stems from several intertwined factors. Primarily, the economic upheaval caused by the pandemic has profoundly affected Malaysia's economy, resulting in job cuts, diminished hiring, and intensified job market competition. Graduates now confront formidable obstacles in securing employment due to these economic uncertainties. As highlighted by many past researchers (Jasni et al. (2023); Khan and Chong (2024); Kumar et al. (2023)), the covid-19 pandemic has exacerbated

unemployment causing a spike in the number of jobless graduates. Most firms especially those in the service industry were not able to operate regularly, resulting in layoffs (Kumar et al., 2023). Meanwhile, Rahman et al. (2022) explained that the increasing trend of graduates' underemployment is attributed to the decline in the number of skilled job vacancies due to the unfavorable economic condition. The economic closure due to the pandemic crisis leading to the sharp decrease of foreign direct investment has further led to the reduction in the skilled job vacancies available for fresh graduates.

Moreover, a key concern is the mismatch between graduates' skills and those demanded by employers, exacerbating employability issues. The mismatch between the supply and demand of the workforce has been pointed out by Seng (2018). In which, Seng (2018) further highlighted that a significant number of youthful graduates are not acquiring enough to adapt the increasing typical cost for basic items. According to Holidi and Seman (2023), situation does not show that the supply meets the demand in terms of youth employment and jobs vacancies. Hence, the evolving job landscape has calls for a fresh perspective on the skills, adaptability, and competencies needed for post-pandemic employment. The pandemic has accelerated technological change, emphasizing digital literacy and adaptability to tech-driven work setups. Graduates must adeptly navigate this transformation to bolster their employability. Youth unemployment remains a pressing issue in Malaysia, with graduates forming a significant portion of this demographic. Tackling this challenge is vital for both the younger generation's well-being and the nation's economic stability. The major advancement in the technology has appeared to change the employment structure rendering many current jobs becoming obsolete and be replaced by technology (Rahman et al., 2022). For instance, many businesses have shifted to online platforms due to the social restrictions on economic activities during the COVID-19 crisis (Kamaruddin, 2022). Under such circumstance, graduates will need to be equipped with new set of essential skills such as digital skills that can adapt to the new structural changes of the employment market.

This study aims to explore the challenges and potentials in Malaysian graduates' employability post-COVID-19 by employing a SWOT analysis framework. The SWOT framework has been widely used to inform strategic planning and decision-making. It provides a clear structure that gathers information from various sources and provides an overview of the internal (strengths and weaknesses) and external factors (threats and opportunities) (Farrokhnia et al., 2024). Although studies in the past have shed light on the factors that affect the graduates' employment, however, there is a dearth of research done to highlight how the graduates' employability has been generally affected by the post-pandemic crisis. Hence, this study will contribute by building on the existing literature in providing a much more comprehensive overview of how the graduates' employability can be affected by the pandemic crisis via the SWOT analysis framework. By utilizing the overview from the SWOT analysis, insights and recommendations can be provided at the end of this study. The insight will be useful for policymakers to make better informed decisions by designing suitable educational strategies and employment policies.

The remaining section of this paper is structured as follow; Section 2 provides the literature review that discussed the past findings highlighting the pandemic's impact on the graduates' employability trends. This is then followed by Section 3 that discussed the methodology employed in this study. Subsequently, Section 4 presented the discussion on the overview provided by the SWOT analysis framework. Finally, Section 5 concludes the discussion of this study with useful recommendations for future research purpose and policy decision makings

2. Literature Review

This section initiates with a review of literature, presenting key findings from previous studies that shed light on the pandemic's impact on graduates' employability. While many literature predicates new

employment skills, career shocks can catalyze personal and professional growth amidst the unpredictability they bring (Akkermans et al., 2020). In today's dynamic work landscape, acknowledging and responding to these shocks are integral to career adaptability (Akkermans et al., 2020). Similarly, soft skills such as collaboration and ethics were deemed crucial in this industry due to its diverse stakeholders. Crismon et al. (2021) highlighted the challenges graduates face in post-pandemic job searches, noting the impact on job training and future educational plans. Ren et al. (2023) stressed the need for communicative and cultural competencies to navigate unexpected career shocks. Meanwhile, Hwa (2015) identified critical skills, highlighting a lack of self-management skills among graduates contributing to unemployment. On a separate note, Mărgărint et al. (2023) and Galster et al. (2023) discussed the reliance of different graduate levels on various educational stages and the significance of identifying necessary soft skills for industry relevance. Aviso et al. (2021) linked university attributes to graduate employability, while Chigbu & Nekhwevha (2022) highlighted the significance of competence in navigating labor market changes.

In view of the impacts of Covid-19 on employment, securing employment has been a primary concern for job seekers and career advancement (Fossatti et al., 2023; Grosemans et al., 2023). The COVID-19 pandemic has drastically escalated unemployment rates across ASEAN countries (Jingyi et al., 2021). Dang et al. (2023) noted a decline in quality employment during the pandemic, manifesting in layoffs, salary reductions, and job offer rejections. This downturn has hit vulnerable groups, including informal sector workers, gig laborers, and SMEs, particularly hard, jeopardizing their livelihoods due to lockdowns and limited social security coverage (Jingyi et al., 2021). Furthermore, the transport and telecommunications sectors witnessed reduced benefits and wages during the pandemic's disruption (Štalmachová, 2021). The evolving job market is profoundly shaping demands placed on higher education programs (Bennett et al., 2022). Liang et al. (2022) highlight workforce contraction as a key pandemic consequence in countries like China.

Similarly, the impact of COVID-19 pandemic on the employment market in Malaysia has been pointed out by past researches such as Rahman et al. (2022) who discusses the pervasive issues of underemployment and labor mismatch in Malaysia. According to Rahman et al. (2022), the issue of employment in Malaysia has been driven by economic globalization which reduced skilled job opportunities, and the subsequent technological advancements has replaced traditional jobs. The digital divide encompasses discrepancies in virtual network access, proficiency, and digital skills (Männasoo et al., 2023). Meanwhile, Seng (2018) highlighted the graduates' factors, demand supply factors, employer factors as the main factors that affect the graduates' employability in Malaysia. On the other hand, Khan and Chong (2023) pointed out that the academic performance, employability skills and personality skills were the main factors that affect the graduates' employability. With the increased use of technology and internet in current highly competitive market, such a skill set has been deemed highly essential. Hence, universities and companies must collaboratively address undergraduates' employability challenges (Navío-Marco et al., 2023).

A SWOT analysis was able to provides a clear structure to gather information from various sources and provides an overview of the internal (strengths and weakness) and external factors (threats and opportunities) of that affect the graduates' employment post-covid19. A SWOT analysis is no doubt a valuable tool for strategic planning (Dickson (2002); Valentin (2001) and Panagiotou (2003)). In fact, the SWOT analysis framework has been widely employed within many different fields of research and within various context as indicated by Benzaghta et al. (2021). Although many researches in the past has examined the factors that affect the employment of graduates in the market, however, scarce literature was found to employ a SWOT analysis to provide overview of such impacts resulted by the COVID-19 on the employment market. Employing the SWOT analysis framework to evaluate the employment prospects of graduates in the aftermath of COVID-19 offers a systematic method for identifying critical internal and external factors. For instance, it underscores Strengths, such as the digital competencies developed through remote education, and Weaknesses, such as the deficiency in practical experience resulting from

disruptions. Additionally, it investigates Opportunities, including the rise of new industries and the remote job market, while recognizing Threats, such as economic recessions and heightened competition. This comprehensive analysis equips graduates and educational institutions to strategically navigate career trajectories, enhance skill acquisition, and adapt to the dynamically changing labor market. The dearth of literature found employing the SWOT analysis framework in examining the influential factors that affect graduates' employability during and post-covid19 period allows this research to significantly contribute in fulfilling the current literature gap.

3. Methodology

A SWOT analysis serves as a strategic planning tool whereby it is widely utilized not only by individuals, organizations, and businesses but also as a functional method within this research to appraise the current state of employability and establish a strategic blueprint for future purposes. This customary evaluation entails pinpointing and assessing these fundamental aspects: Strengths (S), Weaknesses (W), Opportunities (O), and Threats (T). Given that this research necessitates in the identification of obstacles and possibilities, the SWOT analysis emerges as a methodical assessment. Its adaptability allows for a structured decision-making framework, aiding researchers in making informed choices to meet research goals while addressing potential challenges. The first step of the SWOT analysis involves the collection of key resources, followed by the sorting of the data into the four categories namely: strengths, weakness, opportunities and threats. The subsequent steps involve the development of a SWOT matrix with the four thematic clusters created. The last stage involves incorporation of the SWOT analysis framework in decision-making process with in-detail discussion on the thematic clusters with future study recommendation.

As pointed out by Benzaghta et al. (2021), SWOT analysis is a convenient tool to be used at the evaluation stage in the attempts to gain initial idea of possible future consequences. As such, utilizing the SWOT analysis framework to investigate the determinants influencing graduates' employment in the aftermath of COVID-19 is imperative, as it provides a systematic methodology for identifying critical Strengths, Weaknesses, Opportunities, and Threats within the transforming labour market. By gathering the existing literature and to review these literatures via the SWOT analysis framework, this technique essentially contributes in providing a comprehensive overview of the four major aspects that can explained well the employment structural changes during and post-pandemic crisis period. The literature resources were gathered from online database including Google scholar. The selection criteria of the literatures were based on the following: (1) Studies that examine the factors contributing to graduates' unemployment during and post-covid19, (2) Studies published in English only. Besides that, this study also utilizes secondary data from sources such as social media, mainstream media, commentaries, and other documentaries of related evidence.

The literature selected and gathered were then reviewed via the SWOT analysis framework to assess the strengths, weakness, opportunities and threats caused by the pandemic crisis on the graduates' employability market. The objective of the SWOT analysis is to provide a comprehensive overview of the strengths, weakness, threats and opportunities and using such information to formulate strategies accordingly. For example, the strengths may encompass digital competencies or adaptability acquired during the pandemic, while weaknesses could stem from inadequate job experience resulting from interrupted internships or employment hiatuses. Policy makers can take advantage from the strengths and to devise new strategies based on the strengths in reducing the weaknesses. Meanwhile, the opportunities may emerge from the increasing demand for remote work and digital services, whereas threats could consist of economic volatility, heightened competition, and shifts across various sectors. Such insight gained can be used to avoid the threats by taking the opportunities available. Through a thorough assessment of these

components, graduates and policymakers can formulate better strategies to support employability and resilience in a swiftly evolving employment context.

4. Result

In line with the study's focus, SWOT analysis is flexible and applicable across different research fields, specifically here in the context of development economics concerning the employment outlook for Malaysian graduates. Presented in a SWOT matrix layout, this visual depiction aids in pinpointing possible strategies, interventions, or resolutions stemming from the analysis's insights based on the reviews of the past literature and other secondary resources gathered. By using the SWOT analysis framework, the reviews were clustered accordingly to the four main themes of strengths, weakness, opportunities and threats. The subsequent section will discuss in detail the SWOT matrix presentation and to further provide recommendations for future studies.

Table 1: SWOT Matrix of Malaysian Graduates' Employability

	During Pandemic	Post Pandemic
Strengths	<ul style="list-style-type: none"> • Multilingual Skills (Pirhonen, 2021) • Self-learning (Henry, 2023) 	<ul style="list-style-type: none"> • Increased Linguistics Skills (Chan & Abdullah, 2015) • Cross country communication (Ma'dan et al., 2020)
Weaknesses	<ul style="list-style-type: none"> • Limited engagement (Brenda et al., 2020) • Lack of hands-on experience (Brenda et al., 2020) • Low Wage Levels (Staronline, 2022) 	<ul style="list-style-type: none"> • Skills gaps (Nadarajah, 2021) • Unsatisfied pay (Sofiah, 2021) • Lack of confident (Rafani et al., 2021)
Opportunities	<ul style="list-style-type: none"> • Technology advancement (Crawford, 2022) • Entrepreneurship (Altun, 2021) • Government Initiatives (Bernama, 2022) 	<ul style="list-style-type: none"> • Innovation and Creation (Hewlett, 2014; Specht & Crowston, 2022) • Globalization (World Economic Forum, 2020) • Lifelong Learning (Li, 2022) • Green Mobility (Natrah, 2021; UN News, 2021)
Threats	<ul style="list-style-type: none"> • Unstable Work-Life Balance (Mohamad Aqil et al., 2019) • High Competition (Kang-Chung & Choi, 2019) • Economic Downturn (MIDA, 2020) • Environmental Pollution (WHO, 2022) 	<ul style="list-style-type: none"> • Information Assymmetric (Sahin & Celikkan, 2020) • Global Competition (Song et al., 2021) • Automation (Aaker et al., 2020) • Environmental degradation (YuNing, 2023)

Source: Compiled by author

5. Discussion

Interpreting on the SWOT matrix above (Table 1), multilingual skills and self-learning act as strengths (S) during pandemic, whereas increased linguistics skills and hybrid interaction assemble as for strengths (S) in post pandemic, where these criteria contribute positively to graduates' career prospects. Developing

multilingualism during higher education is vital to be prepared for labour market (Pirhonen, 2021). Self-commitment is considerably entangled for language learners who pursue to be multilingual (Henry, 2023). In this linguistically diverse country – Malaysia, graduates' proficiency in multiple languages such as Malay, English, and Mandarin can be a significant asset (Chan & Abdullah, 2015). In long run, Malaysian graduates are better equipped to navigate cross-cultural communication (Ma'dan et al., 2020). Multilingualism provides graduates in Malaysia with distinct employment advantages across various industries due to the country's multicultural landscape and its role as a regional hub. Proficiency in multiple language such as Malay, English, Mandarin, and Tamil can enhance communication and collaboration in diverse workplaces, improves customer relations in sectors such as tourism, retail, and hospitality, and allows greater market reach globally. Additionally, multilingual graduates are better positioned for roles in multinational corporations, where cross-cultural competencies and language skills are essential for building connections. In identifying these strengths in the graduates' employability during and post-pandemic period, these strengths can be leveraged by building on the graduates' skills in language communication and encouraging continuous life-long learning that can develop talents will be highly competitive internationally.

Drawing upon the table of the preceding SWOT analysis, weaknesses (W) during pandemic such as limited supervision, lack of hands-on experience, low wage levels, and less motivation contribute negatively to graduates' employment prospects. Limited engagement, shortage of practical training, and low motivation can reduce graduates' exposure to real-world work experiences (Brenda et al., 2020). Plus, lower wage offers resulting from economic impacts for graduates raises financial stress to fulfil their basic needs and pay academic loans (Staronline, 2022). Meanwhile, weaknesses (W) in post pandemic include skills gaps, uncertain working direction, unsatisfied pay, and lack of confidence. Graduates may have skills that are not fully aligned with the changing demands of the job market (Nadarajah, 2021). Ambiguity about the industry stability causes Malaysian graduates to face indecision of career paths (Rafani et al., 2021) While the post-pandemic period brings economic recovery, it may not immediately translate into improved pay for graduates. Employers remain cautious about increasing salaries, leading to unsatisfactory compensation for graduates (Sofiah, 2021). Connecting these situations, graduates who lack confidence may be less effective in job interviews, negotiations, and building professional connections. The weakness highlighted can be mitigated through targeted interventions such as offering upskilling, reskilling programs tailored to the industries' demand by focusing on current essential skills (digital literacy skills, personal soft skills such as communication, problem solving and teamwork). Besides that, a revision of the current curricula is needed to align the syllabus with the market demands. In addition, efforts to address the challenges of low wages may require policy strategies such as wage subsidies and minimum wage enactment.

Further interpreting Table 1, technology advancement, entrepreneurship, and government initiatives can be known as opportunities (O) during pandemic. The pandemic has accelerated the adoption of digital technologies across industries, which presents an opportunity for graduates with digital skills to be in high demand (Crawford, 2022). The pandemic has prompted a surge in star up culture, where graduates can venture into entrepreneurship, creating their own job opportunities (Altun, 2021). Not only that, government initiatives via skills development programs, and job placement initiatives namely KPT-CAP, and TVET, assisting graduates in finding suitable employment opportunities (Bernama, 2022). Precisely, innovation and creation, internationalization, lifelong learning, and green mobility tend to be comprehended as opportunities (O) in the post pandemic era. Graduates with interdisciplinary knowledge and the ability to collaborate across diverse fields can contribute to innovation (Hewlett, 2014; Specht & Crowston, 2022). Since the job market is enlarging worldwide, multinational companies often seek talent that can work effectively in diverse international teams, providing some potential graduates an alternative path (World Economic Forum, 2020). Prioritizing lifelong learning allows graduates to acquire new skills and certifications, embrace adaptation to changes, and career development (Li, 2022). Green mobility allows

graduates to be involved in sustainable transport and corporate sustainability, which also potentially gaining governance initiative likely electric vehicle subsidies in future days (Natrah, 2021; UN News, 2021). The opportunities identified through the SWOT analysis framework can be further developed with the increase of government and industry partnership in support of innovation and sustainable green practices (investments in green renewable energy sectors). Additionally, efforts to leverage globalization calls upon more international collaboration that provide opportunities for graduates to tap into global networks and markets.

Pertaining to Table 1, unstable work-life balance, high competition, economic downturn, and environmental pollution are conceivably to be threats (T) for Malaysian graduates' employability trend during pandemic. In the meantime, threats (T) in post pandemic consist of complicated information, global competition, economic uncertainty, automation, and environmental degradation. As pandemic has led to an increase in remote work and distance learning for Malaysian graduates, it blurs the boundaries between work and personal life, leading to burnout and reduced job satisfaction (Mohamad Aqil et al., 2019). Graduates may face stiff competition for a limited number of job openings, not only from local job seekers but also from candidates worldwide, potentially putting additional pressure on their employability (Kang-Chung & Choi, 2019). Economic downturns during pandemic led to job insecurity, layoffs, and downsizing, in which companies may implement cost-cutting measures (MIDA, 2020). Waste mismanagement during pandemic raises environmental pollution which have adverse health effects towards citizens (WHO, 2022). In the age of information, graduates may encounter information overload and information asymmetry with the existence of overwhelming job market sites that causes data ambiguity (Sahin & Celikkan, 2020). Economic uncertainty in the post pandemic era can lead to fluctuations in the job market (less availability of job openings and job stability) and underemployment (graduates may accept jobs that do not fully utilize their skills) (Song et al., 2021). In upcoming trends, automation through artificial intelligence can lead to the displacement of certain job roles, bringing job market shifts that require graduates to acquire up-to-date skills (Aaker et al., 2020). While improper disposal of waste from pandemic occurs, it tends to raise pollution issue that might diminish Malaysian graduates' employability from sustainable industry aspect. Environmental degradation specifically the issue of releasing radioactive water by Japan may rigidly impact the ocean ecosystem (YuNing, 2023). Eventually, public skepticism about the issue can affect the receptiveness of audiences to environmental advocacy messages, potentially diminishing job prospects in this field. Mitigating the identified threats to graduates' employability during and post-pandemic requires strategic approaches. High and global competition can be addressed through upskilling and reskilling by focusing on in-demand skills like digital technologies and soft skills. Environmental degradation concerns can be alleviated by promoting green industries and sustainable practices. To tackle unstable work-life balance, flexible work policies and mental health support should be prioritized. Addressing information asymmetry involves enhancing access to reliable career resources, while the economic downturn can be mitigated by fostering entrepreneurship among graduates.

6. Conclusion

In conclusion, this study on Malaysian graduates' employability trends sheds light on the employment structural changes in Malaysia during and post-pandemic period. Graduates face diverse challenges in the job market, from intricate information to technological advancements, compounded by the pandemic's impact. The study emphasizes the urgent need for continuous skill development to bridge the gap between graduates' abilities and industry demands. Adaptability and resilience are key in navigating this evolving job landscape, recognizing that employability requires ongoing growth. Educational institutions need to update their course structures for graduates to acquire skills matching the changing job landscape. Policymakers should introduce measures that can support graduates' job integration. In the future, stakeholders—institutions, employers, and policymakers—must collaborate to enhance employability. This collective effort can boost graduates' readiness for the evolving job market, spur economic growth, and

ensure they're well-equipped for future work demands in Malaysia.

Exploring Malaysian graduates' employability trends can offer various contributions as the advantages, as mentioned below. Primarily, employing SWOT analysis enhances research quality and aligns with objectives, aiding in data comprehension and decision-making. It serves as a foundational element for researchers offering a comprehensive summary of research data. Additionally, this study benefits graduates by highlighting sought-after skills and guiding educational and career choices in a shifting job market. Its insights provide institutions with the means to adapt programs to industry needs, bolstering graduate employability. Moreover, employers gain valuable insights for targeted hiring, while policymakers can use this data to make evidence-based decisions, potentially reducing unemployment and improving economic stability. Ultimately, this research on Malaysian graduate employability trends holds the potential for substantial impacts on policy, education, business practices, and societal well-being.

However, this study is limited in the review of secondary data through resources gathered within a short study period. As such, considering such limitations future researchers should expanding the study by involving primary data analysis (for example, through interviews with various stakeholders and government agencies). By conducting such study, the findings' accuracy will increase, offering more substantial evidences, particularly for long-term planning purposes. Notwithstanding, future studies associated with similar research could consider expanding data collection and evaluation of policies concerning the employability of Malaysian graduates. This might involve adopting new methodologies or software to augment the research process. To add on, strengthening the methodology would significantly enhance the credibility and accuracy of the data, offering benefits not only to researchers but also to the wider scientific community, policymakers, and society by fostering the development of dependable and pertinent knowledge.

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Conflict of interest statement

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References

- Aaker, J., Fei Li, F., Higginbotham, T., Weinberg, Z., & De La Rosa, W. (2020). Human-Centered Artificial intelligence and workforce displacement. Stanford Graduate School of Business. Retrieved from <https://www.gsb.stanford.edu/faculty-research/case-studies/human-centered-artificial-intelligence-workforce-displacement#:~:text=At%20its%20best%2C%20AI%20will%20boost%20global%20economic,amplify%20education%20and%20skills%20gaps%20in%20the%20workforce>.
- Abd Rahman, N. H., Abd Samad, K., & Phong, S. Y. (2022). A Review on Post COVID-19 Pandemic towards Tertiary Education and Graduate Employability in Malaysia.
- Akkermans, J., Richardson, J., & Kraimer, M. L. (2020). The Covid-19 crisis as a career shock: Implications for careers and vocational behavior. *Journal of Vocational Behavior*, 119, 103434. <https://doi.org/10.1016/j.jvb.2020.103434>

- Altun, Y. B. (2021, April 9). Pandemic Fuels Global Growth Of Entrepreneurship And Startup Frenzy. *Forbes*. <https://www.forbes.com/sites/forbestechcouncil/2021/04/09/pandemic-fuels-global-growth-of-entrepreneurship-and-startup-frenzy/>
- Aviso, K. B., Demeterio, F. P., Janairo, J. I. B., Lucas, R. I. G., Promentilla, M. a. B., Tan, R. R., & Yu, D. E. C. (2021). What university attributes predict for graduate employability? *Cleaner Engineering and Technology*, 2, 100069. <https://doi.org/10.1016/j.clet.2021.100069>
- Bennett, D., Ananthram, S., Lindsay, S., Benati, K., & Jevons, C. (2022). Employability beliefs of business students by gender and year of study: Implications for higher education. *The International Journal of Management Education*, 20(2), 100654. <https://doi.org/10.1016/j.ijme.2022.100654>
- Benzaghta, M. A., Elwalda, A., Mousa, M. M., Erkan, I., & Rahman, M. (2021). SWOT analysis applications: An integrative literature review. *Journal of Global Business Insights*, 6(1), 54-72.
- Bernama. (2022). Malaysia implements 5 initiatives to address drop in graduates' marketability. *New Straits Times*. <https://www.nst.com.my/news/nation/2022/05/799293/malaysia-implements-5-initiatives-address-drop-graduates-marketability#:~:text=The%20ministry%2C%20in%20a%20statement%20issued%20here%20today%2C,and%20micro-credential%20programmes%2C%20as%20well%20as%20mobility%20programmes.>
- Brenda, A. S. Y., Mir, S., Lai, G. X., Nicholas W. Y. Z., & Wong, J. J. (2020). Challenges and Experiences Faced by Malaysian Undergraduates in Coping with Low Academic Motivation During the COVID-19 Pandemic. *Jurnal Psikologi Malaysia*, 35(3), 40–63. <https://spaj.ukm.my/ppppm/jpm/article/view/713/525>
- Chan, S. H., & Abdullah, A. N. (2015). Bilingualism in Malaysia: Language Education Policy and Local Needs. *Social Sciences & Humanities*, 23(S), 55–70. <http://psasir.upm.edu.my/id/eprint/41733/>
- Chigbu, B. I., & Nekhwevha, F. (2022). Academic-faculty environment and graduate employability: variation of work-readiness perceptions. *Heliyon*, 8(3), e09117. <https://doi.org/10.1016/j.heliyon.2022.e09117>
- Crawford, B. (2022, May 20). COVID-19 has accelerated the digital transformation - here's how companies can adapt. *World Economic Forum*. <https://www.weforum.org/agenda/2021/03/covid-19-accelerated-digital-transformation-how-companies-can-adapt/>
- Crew, T., & Märtins, O. (2023). Students' views and experiences of blended learning and employability in a post-pandemic context. *Social Sciences & Humanities Open*, 8(1), 100583. <https://doi.org/10.1016/j.ssaho.2023.100583>
- Crismon, D., Mansfield, K., Hiatt, S. O., Christensen, S. S., & Cloyes, K. G. (2021). COVID-19 pandemic impact on experiences and perceptions of nurse graduates. *Journal of Professional Nursing*, 37(5), 857–865. <https://doi.org/10.1016/j.profnurs.2021.06.008>
- Dang, H., Nguyen, C., & Carletto, C. (2023). Did a successful fight against COVID-19 come at a cost? Impacts of the pandemic on employment outcomes in Vietnam. *World Development*, 161, 106129. <https://doi.org/10.1016/j.worlddev.2022.106129>
- Dickson, P. R. (2002, June 11-13). Dynamic versus static SWOT analysis [Paper Presentation]. American Marketing Association Conference, Chicago, IL, USA.
- Farrokhnia, M., Banihashem, S. K., Noroozi, O., & Wals, A. (2024). A SWOT analysis of ChatGPT: Implications for educational practice and research. *Innovations in Education and Teaching International*, 61(3), 460-474.
- Fang, J., Pechenkina, E., & Rayner, G. (2023). Undergraduate business students' learning experiences during the COVID-19 pandemic: Insights for remediation of future disruption. *The International Journal of Management Education*, 21(1), 100763. <https://doi.org/10.1016/j.ijme.2023.100763>
- Fossatti, P., Jabbour, C. J. C., Ratten, V., Pereira, G. M., Borchardt, M., Milan, G. S., & Eberle, L. (2023). What do (should) we know to leverage students' employability and entrepreneurship? A systematic guide to researchers and managers. *The International Journal of Management Education*, 21(2), 100788. <https://doi.org/10.1016/j.ijme.2023.100788>

- Galster, M., Mitrovic, A., Malinen, S., Holland, J., & Peiris, P. (2023). Soft skills required from software professionals in New Zealand. *Information & Software Technology*, 160, 107232. <https://doi.org/10.1016/j.infsof.2023.107232>
- Grosemans, I., De Cuyper, N., Forrier, A., & Vansteenkiste, S. (2023). Graduation is not the end, it is just the beginning: Change in perceived employability in the transition associated with graduation. *Journal of Vocational Behavior*, 145. <https://doi.org/10.1016/j.jvb.2023.103915>
- Henry, A. (2023). Multilingualism and persistence in multiple language learning. *The Modern Language Journal*, 107(1), 183–201. <https://doi.org/10.1111/modl.12826>
- Hewlett, S. A. (2014, August 1). How diversity can drive innovation. *Harvard Business Review*. <https://hbr.org/2013/12/how-diversity-can-drive-innovation>
- Holidi, N. A., & Abu Seman, N. A. (2023). A study of employability skills: from the employers and youth perspectives. *Journal of International Business, Economics and Entrepreneurship (JIBE)*, 8(1), 64–76.
- Hwa, M. a. C. (2015). Graduate Employability Awareness: A Gendered Perspective. *Procedia - Social and Behavioral Sciences*, 211, 192–198. <https://doi.org/10.1016/j.sbspro.2015.11.083>
- Jasni, N. S., Kamarudin, S. N., & Abdullah, A. (2023). The effects of COVID-19 on unemployment in realising sustainable development goals: evidence from Malaysia. *The Journal of Asian Finance Economics and Business (JAFEB)*, 10(1), 201–208.
- Jingyi, L., Lim, B., Khairul Hanim Pazim, & Fumitaka Furuoka. (2021). Covid-19 Pandemic's Impact on the Labour Market in ASEAN Countries. *AEI Insights: An International Journal of Asia-Europe Relations*, 7(1). <https://doi.org/10.37353/aei-insights>
- Kamaruddin, N. A. (2022). Factors Influencing the ICT Innovation Process in Small-Medium Enterprises: A Conceptual Framework. *Journal of International Business, Economics and Entrepreneurship*, 7(2), 75–75.
- Kang-Chung, N., & Choi, M. (2019, May 15). University graduates face tough competition and low salaries as they enter Hong Kong's crowded workforce. *South China Morning Post*. <https://www.scmp.com/news/hong-kong/education/article/3010178/university-graduates-face-tough-competition-and-low>
- Khan, M. M. & Chong, P. Y. (2024). Factors Influencing Employability Of Fresh Graduates Post Covid-19: A Study Conducted On The Perspective Of Malaysian Employers. *International Journal of Business Management (IJBM)*, 7(1), 1 – 15.
- Kwarteng, J. T., & Mensah, E. K. (2022). Employability of accounting graduates: analysis of skills sets. *Heliyon*, 8(7), e09937. <https://doi.org/10.1016/j.heliyon.2022.e09937>
- Li, L. (2022). Reskilling and upskilling the future-ready workforce for industry 4.0 and beyond. *Information Systems Frontiers*. <https://doi.org/10.1007/s10796-022-10308-y>
- Liang, X., Rozelle, S., & Yi, H. (2022). The impact of COVID-19 on employment and income of vocational graduates in China: Evidence from surveys in January and July 2020. *China Economic Review*, 75, 101832. <https://doi.org/10.1016/j.chieco.2022.101832>
- Luan, N. T., Nguyen, H. T., Nguyen, N. H., Nguyen, L. D., Nguyen, T. T. D., & Le, L. D. (2023). Factors affecting students' career choice in economics majors in the COVID-19 post-pandemic period: A case study of a private university in Vietnam. *Journal of Innovation & Knowledge*, 8(2), 100338. <https://doi.org/10.1016/j.jik.2023.100338>
- Ma'dan, M., Ismail, M., & Daud, S. (2020). Strategies to Enhance Graduate Employability: Insights from Malaysian Public University Policy-Makers. *Malaysian Journal of Learning & Instruction*, 17(Number 2), 137–165. <https://doi.org/10.32890/mjli2020.17.2.5>
- Männasoo, K., Pareliussen, J., & Saia, A. (2023). Digital Capacity and Employment Outcomes: Microdata Evidence from Pre- and Post-COVID-19 Europe. *Telematics and Informatics*, 83, 102024. <https://doi.org/10.1016/j.tele.2023.102024>
- Märgärint, M. C., Kovačić, S., Albulescu, A., & Miljković, Đ. (2023). Natural multi-hazard risk perception and educational insights among Geography and Tourism students and graduates amid the Covid-19

- pandemic. *International Journal of Disaster Risk Reduction*, 86, 103549. <https://doi.org/10.1016/j.ijdr.2023.103549>
- Meriküll, J., & Paulus, A. (2023). The impact of the Covid-19 job retention support on employment. *Economics Letters*, 222, 110963. <https://doi.org/10.1016/j.econlet.2022.110963>
- Mezhoudi, N., Alghamdi, R., Aljunaid, R., Krichna, G., & Düşteğör, D. (2021). Employability prediction: a survey of current approaches, research challenges and applications. *Journal of Ambient Intelligence and Humanized Computing*, 14(3), 1489–1505. <https://doi.org/10.1007/s12652-021-03276-9>
- Miani, P., Kille, T., Lee, S. Y., Zhang, Y., & Bates, P. R. (2021). The impact of the COVID-19 pandemic on current tertiary aviation education and future careers: Students' perspective. *Journal of Air Transport Management*, 94, 102081. <https://doi.org/10.1016/j.jairtraman.2021.102081>
- MIDA. (2020, September 14). Impact of COVID-19 on the Malaysian economy and the mitigation measures - MIDA | Malaysian Investment Development Authority. MIDA | Malaysian Investment Development Authority. <https://www.mida.gov.my/why-malaysia/business-during-covid-19/impact-of-covid-19-on-the-malaysian-economy-and-the-mitigation-measures/>
- Mohamad Aqil, Nurul Hidayana, & Aida Abdullah. (2019). Challenges Of Covid-19 Towards Malaysian Employment. In *E-PROCEEDING 8th INTERNATIONAL CONFERENCE ON PUBLIC POLICY AND SOCIAL SCIENCE (ICoPS) 2021*. UiTM Cawangan N. Sembilan, Kampus Seremban.
- Rafani, Nur Ashma Hidayah, & Adnan Aminuddin (Eds.). (2021). Graduate Employability Post-COVID 19: The Challenge for Malaysian Public University. *IVCPPS 2021*, 23–25. <https://ir.uitm.edu.my/id/eprint/57033/1/57033.pdf>
- Nadarajah, J. V. (2021). MEASURING THE GAP IN EMPLOYABILITY SKILLS AMONG MALAYSIAN GRADUATES. *International Journal of Modern Trends in Social Sciences*. <https://doi.org/10.35631/ijmtss.415007>
- National Geographic Society. (2022). Demography. National Geographic. <https://education.nationalgeographic.org/resource/demography/>
- Natrah. (2021, October 30). Budget 2022: EV gets boost from exemption of various taxes. *Kementerian Kewangan Malaysia*. <https://www.mof.gov.my/portal/en/news/press-citations/budget-2022-ev-gets-boost-from-exemption-of-various-taxes>
- Navío-Marco, J., Sanchez-Figueroa, C., & González, A. G. (2023). Business internships for bachelor's degrees at blended learning universities: A pilot study to assess the transition from hybrid studies to the workplace. *The International Journal of Management Education*, 21(2), 100821. <https://doi.org/10.1016/j.ijme.2023.100821>
- Panagiotou, G. (2003). Bringing SWOT into focus. *Business Strategy Review*, 14(2), 8-10.
- Peebles, L. A., Aman, Z. S., Kraeutler, M. J., & Mulcahey, M. K. (2023). The COVID-19 pandemic increased the use of virtual fellowship interviews, reduced case volume, and limited sideline coverage opportunities during sports medicine surgeon training. *Arthroscopy, Sports Medicine, and Rehabilitation*, 5(3), e891–e895. <https://doi.org/10.1016/j.asmr.2023.02.015>
- Pirhonen, H. (2021). Towards multilingual competence: examining beliefs and agency in first year university students' language learner biographies. *Language Learning Journal*, 50(5), 613–626. <https://doi.org/10.1080/09571736.2020.1858146>
- Rahman, N. H. A., Ismail, S., Ridzuan, A. R., & Samad, K. A. (2020). The Issue of Graduate Unemployment in Malaysia: Post Covid-19. *International Journal of Academic Research in Business & Social Sciences*, 10(10). <https://doi.org/10.6007/ijarbss/v10-i10/7843>
- Rahman, N. H. A., Samad, K. A., & Phong, S. Y. (2022). A Review on Post COVID-19 Pandemic towards Tertiary Education and Graduate Employability in Malaysia. *International Journal of Academic Research in Business & Social Sciences*, 12(11). <https://doi.org/10.6007/ijarbss/v12-i11/14860>
- Ren, S., Islam, M. T., & Chadee, D. (2023). Career adaptability of international hospitality management students during the COVID-19 pandemic: Focus on the role of language communication

- competence. *Journal of Hospitality and Tourism Management*, 54, 231–239. <https://doi.org/10.1016/j.jhtm.2022.12.019>
- Sahin, Y. G., & Celikkan, U. (2020). Information technology asymmetry and gaps between higher education institutions and industry. *Journal of Information Technology Education*, 19, 339–365. <https://doi.org/10.28945/4553>
- Seng, L. C. (2018). Malaysia public universities' graduate employability policies: An analysis of first degree graduates unemployment and underemployment issues. *International Journal of Social Science and Humanities Research*, 6(4), 480-489.
- Sofiah, A. (2021, December 10). Malaysia's labour market in 2022: Salary snapshot & talent trends in IT, manufacturing, and FMCG. *Human Resources Online*. <https://www.humanresourcesonline.net/malaysia-s-labour-market-in-2022-salary-snapshot-talent-trends-in-it-manufacturing-and-fmcg>
- Song, Y., Yang, Y., Yu, J., & Zhao, Z. (2021). The Post-COVID-19 Economic Policy Uncertainty and the effectiveness of monetary policy: Evidence from China. *Frontiers in Public Health*, 9. <https://doi.org/10.3389/fpubh.2021.771364>
- Specht, A., & Crowston, K. (2022). Interdisciplinary collaboration from diverse science teams can produce significant outcomes. *PLOS ONE*, 17(11), e0278043. <https://doi.org/10.1371/journal.pone.0278043>
- Štalmachová, K. (2021). Impact of the COVID-19 pandemic on employment in transport and telecommunications sectors. *Transportation Research Procedia*, 55, 87–94. <https://doi.org/10.1016/j.trpro.2021.06.009>
- Staronline. (2022, April 10). Lower mean monthly salary and wages for graduates during the pandemic. *Head Topics*. <https://headtopics.com/my/lower-mean-monthly-salary-and-wages-for-graduates-during-the-pandemic-25485733>
- UN News. (2021, October 15). Sustainable transport key to green energy shift: UN Secretary-General. <https://news.un.org/en/story/2021/10/1103062>
- Valentin, E. (2001). SWOT analysis from a resource-based view. *Journal of Marketing Theory and Practice*, 9(2), 54-69.
- WHO. (2022, February 1). Tonnes of COVID-19 health care waste expose urgent need to improve waste management systems. *World Health Organization*. <https://www.who.int/news/item/01-02-2022-tonnes-of-covid-19-health-care-waste-expose-urgent-need-to-improve-waste-management-systems>
- World Economic Forum. (2020). *The Future of Jobs Report 2020*. <https://www.weforum.org/reports/the-future-of-jobs-report-2020/in-full/chapter-2-forecasts-for-labour-market-evolution-in-2020-2025>
- YuNing, L. (2023, August 29). Japan's release of radioactive water a risk. *The Star*. <https://www.thestar.com.my/business/business-news/2023/08/29/japans-release-of-radioactive-water-a-risk>.



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