

The Impact of Perceived AI Adoption and Skill Preparedness on University Students' Perceptions of Future Job Market Dynamic

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ABSTRACT

The rapid adoption of Artificial Intelligence (AI) is transforming industries and redefining the global job market. In Malaysia, university students preparing to enter the workforce face growing uncertainty about how AI will impact their future careers. While AI brings opportunities for innovation and job creation, it also introduces challenges such as skill gaps, job displacement, and the need for continuous adaptation. According to the World Economic Forum (2023), an estimated 44% of workers' skills will be disrupted within the next five years due to technological changes, emphasizing the urgency for future talent to be prepared. However, limited research has explored how university students perceive AI's impact on employment and whether they feel equipped to meet the demands of this evolving landscape. This study aims to examine the relationship between perceived AI adoption and perceived skill preparedness on students' perceptions of future job market dynamics. Using a quantitative approach, this study provides insights to inform curriculum design, career services, and workforce development strategies that align with the realities of an AI-integrated economy.

Keywords: Career Preparedness; Employment Perceptions; Future Job Market; Skill Gaps; Technological Disruption; University Students

INTRODUCTION

The advent of Artificial Intelligence (AI) is reshaping not just technology but the entire employment landscape. As industries rapidly integrate AI into their operations, the skills demanded from future professionals are shifting. Traditional roles are being restructured or replaced, while new ones emerge, blending data, decision-making, and digital dexterity. This raises a critical question: Are university students adequately prepared in both perception and skills to navigate a job market transformed by AI?

Universities are now expected to cultivate not only foundational knowledge but also essential competencies such as adaptability, critical thinking, and digital literacy. However, a growing body of research highlights a disconnect between the pace of technological change and graduates' readiness to meet these new demands. This skills gap threatens students' employability in an increasingly automated work environment and underscores the need for a closer examination of how students perceive their own preparedness and the future job market.

Responding to this challenge, the present study draws on a conceptual model that integrates insights from consumer behavior and sustainability research, adopting a cognitive-behavioral approach. It examines how Perceived AI Adoption and Skill Preparedness shape university students' perceptions of future job market dynamics, including employability confidence, awareness of automation, and readiness for future roles. Perceived AI Adoption captures students' interpretation of AI's influence in industries shaped by media, coursework, and internships while Skill Preparedness reflects their confidence in technical and cognitive abilities.

Despite extensive debate around AI's impact on industries and policy, there is limited empirical research on how students themselves process these changes. This study addresses that gap by exploring how external technological forces and internal skill assessments interact to shape students' career outlooks. In doing so, it offers both theoretical and practical contributions by integrating perception-based constructs within the AI context and providing insights for educators and policymakers. Especially in the post-pandemic era of accelerated digital transformation, understanding how students perceive and prepare for an AI-driven future is essential to designing curricula and career support that truly equip graduates to thrive.

LITERATURE REVIEW

Perceived AI Adoption

As the global economy continues to evolve under the influence of rapid technological advancement, artificial intelligence (AI) has emerged as a transformative force influencing industries, work structures, and job roles in future. AI is projected to contribute up to US \$15.7 trillion to the global economy by 2030 (Murphy et al., 2021). Recent studies also indicate that individuals' intention to adopt AI is positively influenced by factors such as perceived usefulness, ease of use, social influence, and prior user experience, while perceived risks and security concerns negatively affect their intention (Said Alzebeda & Mohammed A.I. Matar, 2024). Consequently, this widespread adoption of AI technologies is redefining the expectations of future employees, compelling educational institutions to rethink how they prepare students for the uncertainties of the future job market (Kee, 2024).

AI has been widely adopted across sectors such as finance, healthcare, manufacturing, retail, supply chain, logistics, and utilities, all of which face potential disruption from AI technologies (Dwivedi et al., 2021). Studies indicate that awareness of AI has grown due to media coverage, corporate adoption, and educational initiatives. However, awareness

levels vary across sectors. In healthcare, AI is widely recognized for applications in diagnostics and personalizes treatment. It aids drug discovery, improves surgical precision, and enables real-time monitoring via wearables devices like smartwatches (Hossain et al., 2025). AI adoption in the finance industry is expected to increase rapidly. It highlights the growing importance of AI for fraud prevention, customer service, and the delivery of personalized banking experiences through automated processes (Sumit Bhatnagar & Roshan Mahant, 2024). In contrast, AI adoption in agriculture remains relatively slow. Farmers often struggle to access and implement AI technologies due to high costs, limited infrastructure, and a lack of necessary skills (Mhlanga, 2021). With this, it is hypothesised that:

H1: Perceived AI adoption has a positive relationship with the perceived job market dynamics.

Perceived Skill Preparedness

As AI continues to reshape the world of work, human skills have become more important. (Koay et al., 2023) highlighted how AI-assisted food ordering and delivery systems implemented by KFC in Malaysia, Indonesia, and India reflect the growing dependency on intelligent systems across Southeast Asia. These developments have raised critical questions about the future roles of human labor and the skills required to stay relevant. A survey revealed that 66% of respondents felt uncertain or dissatisfied with their progress in AI adoption, while 62% identified a lack of talent and skills as their primary challenge. Only 6% reported having made significant efforts toward upskilling (Loh et al., 2024). Additionally, younger generations or university graduates are more knowledgeable about AI and more confident in entities to develop, use and govern AI (Gillespie et al., 2023).

The perceived relevance of academic training in the era of AI has grown significantly as educational institutions increasingly integrate AI tools to prepare students for a technology driven workforce. Recently, several varying terms have been utilized to explain the knowledge and ability needed to effectively use AI. These include programming skills, mathematics and statistics, machine learning and deep learning expertise (Skillsoft, 2025). Research shows that digital skill acquisition significantly enhances youth employability, with course quality and perceived satisfaction acting as key mediators in this relationship (Kee, Anwar, Gwee, & Ijaz, 2023; Kee, Anwar, Shern, & Gwee, 2023). This highlights the dual necessity for both technical know-how and a learning experience that supports students' confidence in navigating future career paths. Higher education institutions are increasingly responding to this demand by incorporating work-based learning (WBL) models to bridge academic theory with industry practice. WBL has proven effective in equipping students with hands-on experiences that reflect real-world expectations, promoting stronger links between education and employability (Loke, Lim, Teoh, & Kee, 2024). Such initiatives not only enhance students' workplace readiness but also promote greater awareness of emerging job market trends shaped by AI and digital transformation. With this, it is hypothesised that:

H2: Perceived skill preparedness has a positive relationship with the perceived job market dynamics.

Perceived Job Market Dynamics

The concept of perceived job market dynamics is clearly reflected in the statement that individuals can either feel confident about retaining their current job or about quickly finding a new job of comparable quality if they were to lose their current one. This distinction highlights two core aspects of job market perceptions: job stability and labor market mobility, both of which significantly influence how secure employees feel about

their economic future. These perceptions are shaped by the broader policy environment and labor market conditions of a country. For instance, while some may feel secure due to strong employment protection legislation, others may draw confidence from the belief that the labor market offers ample opportunities for reemployment. The study emphasizes the importance of considering these varied dimensions of job security when evaluating how institutional contexts influence workers outlook on the future labor market.

Perceived Changes in Job Availability

Job availability shapes individual decisions in the job market. Rather than relying solely on hard labor market data, individuals base their sense of job availability on personal assessments on how easily they believe they could switch jobs if needed. This perception is shaped by internal factors, such as one's confidence in their skills and employability, as well as external factors like economic shifts and industry-specific trends. These perceptions deeply influence career behavior for employees who feel limited in options tend to cling to job security and are less likely to consider leaving, while those who perceive abundant opportunities are more open to mobility. In essence, perceived job availability is not just a reflection of market conditions but a psychological filter through which people interpret their stability and possibilities in the labor landscape (Mauno et al., 2020).

This idea becomes especially relevant in the context of artificial intelligence (AI) reshaping professions like accounting. As AI technologies automate routine tasks and introduce intelligent systems into the workplace, the nature of accounting roles is transforming. However, this shift isn't seamless as many experienced professionals struggle with reskilling or embracing change. Meanwhile, academic institutions are being called on to prepare new graduates for an AI-integrated job market. Technologies like AI, blockchain, and big data are not only redefining how accounting is done but are also replacing certain functions entirely. While these tools boost efficiency and decision-making, they also raise valid concerns about job sustainability. Altogether, this signals a major transformation in job market dynamics, where professionals must remain agile and committed to lifelong learning to stay ahead in a rapidly evolving field.

Perceived Need for Future-Proof Skills

As artificial intelligence (AI) transforms the workplace, both individuals and organizations increasingly recognize that adapting proactively is essential. (Verma & Singh, 2022) note that while AI can enhance efficiency, it also raises understandable fears about job security, making adaptable skills crucial to staying relevant. (Lăzăroiu & Rogalska, 2023) highlight that generative AI is reshaping job roles, driving a need for continuous reskilling to keep productivity and competitiveness high. Meanwhile, (Nguyen & Vo, 2022) argue for broader, more holistic policies that help workers navigate career transitions and remain financially secure as AI integration accelerates.

Building on these insights, the conversation around AI and work now centers on the concept of "future-proofing skills." (The OECD, 2023) emphasizes that AI doesn't just affect the quantity of jobs but fundamentally changes the nature of work itself, underscoring the need for people to learn new skills and for education systems to become more flexible. From the tech industry's perspective, IBM's Nixon-Saintil (Axios, 2024) and (Lakshmi & Kumar, 2024) agree that adaptability and lifelong learning are now essential for career survival. Together, these perspectives highlight that future-proofing skills is reshaping how companies hire, how governments craft policies, and how workers prepare themselves for an unpredictable but opportunity-rich future.

Optimism/Pessimism Toward Future Careers

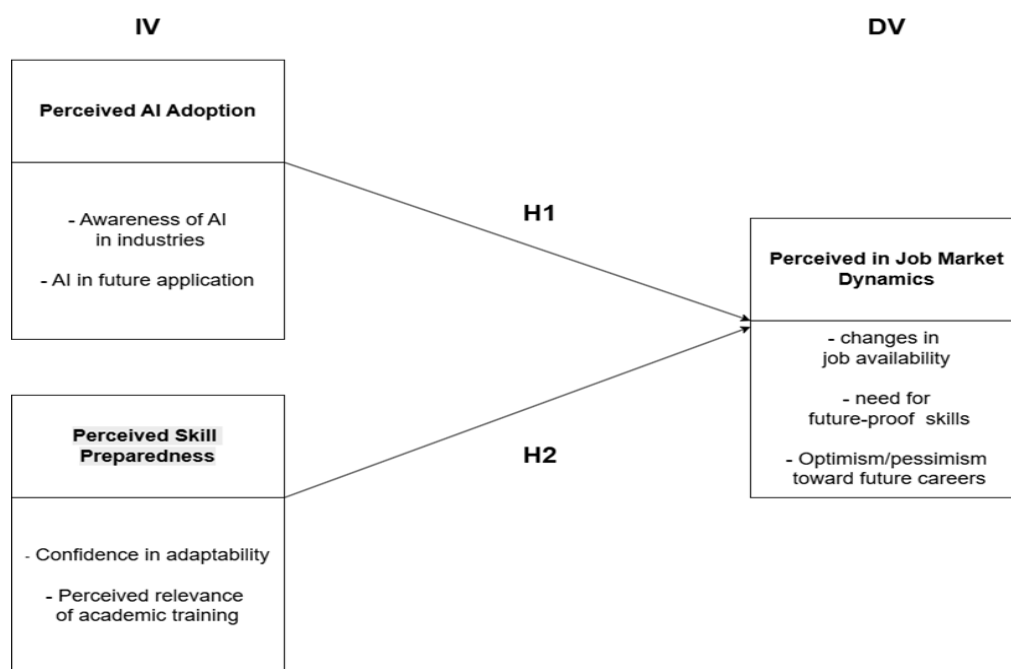
Optimism and pessimism significantly shape how individuals perceive their future careers in the age of AI, influencing broader job market dynamics. Optimistic individuals are more likely to embrace AI as an opportunity for growth, showing greater adaptability, trust in technology, and willingness to up skill. This mindset supports smoother transitions in the labour market and encourages proactive career planning.

On the other hand, those who are more pessimistic about the future may see AI as a threat to job security. This fear can lead to resistance, anxiety, and a reluctance to engage with new skill-building opportunities. Over time, such hesitation could widen the gap between those who are prepared for AI-driven change and those who are not, influencing job market dynamics on a broader scale. The way we emotionally respond to AI matters are not just individually, but for how the future workforce is shaped.

Conceptual Framework

The study framework model is depicted in [Figure 1](#).

Figure 1. Research Framework



RESEARCH METHOD

Research methodology provides a structured approach to conducting research, ensures the reliability and validity of research findings, and helps to advance knowledge in a particular field. As such, it is important for research to carefully consider the research methodology and select the most appropriate method to ensure that the study yields meaningful and accurate results ([Bahishti, 2022](#)). A research methodology provides a detailed plan that helps to keep research on track, making the process smooth. The methodology allows readers to understand how conclusions were reached (Indeed Editorial Team, 2024). This study adopts a quantitative method, which provides an objective and structured framework suitable for hypothesis testing and generating generalized insights ([Lim, W. M, 2024](#)).

In this research, data was collected from a sample of 150 university students across various institutions in Malaysia conducted via Google Forms. The structured

questionnaire was shared across platforms such as WhatsApp, Instagram and Telegram. The aims are to examine how Malaysia university students preparing to enter the workforce face growing uncertainty about how AI will impact their future careers.

Before collecting any data, participants were clearly informed about the objectives of the study, and their consent was obtained to ensure ethical compliance. The questionnaire distributed via Google Forms was carefully structured to capture variety of information. Section A focused on demographic information such as gender, age, institution, race, and field of study, which helps in analyzing responses across different respondent profiles. Next, Section B included general questions about AI use to gauge participants' basic understanding and opinions on AI in everyday life, education, and work. Section C assessed awareness of AI applications in various areas while Section D explored expectations regarding AI's future impact. This section aims to understand how strongly individuals feel that AI will influence various aspects of life. Section E is about confidence in personal adaptability. This section aims to assess students' confidence in their ability to adapt to changes and demands brought about by AI in the workplace. Section F evaluated perceptions of how well academic training prepares students for an AI-driven future. Section G focused on perceived changes in job availability due to AI, and Section H examined the importance of acquiring future-proof skills. Finally, Section I assessed students' optimism or pessimism toward their future careers in light of technological advancements.

The data gathered through the Google Forms automatically sorted in Google Sheets for easy access and organization. One of the advantages using Google Sheets is its built-in summary features which provide visual representations patterns like bar, graph and pie charts. To carry out a more detailed analysis and identity the relationships between variables, the data will be exported to SPSS (Statistical Package for Social Science). SPSS allows for more advanced statistical analysis. By combining Google Forms and SPSS, this research can get a comprehensive interpretation. This method also allows for better validation of survey findings.

RESULTS

Table 1. Summary of Respondent Demographic Information (N=151)

Responses	Frequency	Percentage (%)
Gender		
Male	52	34.4
Female	98	64.9
Age		
18-20	21	13.9
21-30	122	80.8
24-26	6	4.0
27-30	1	0.7
Name of Institution		
UNIVERSITI SAINS MALAYSIA	79	52.3
UNIVERSITI TEKNOLOGI MARA	22	14.6
UNIVERSITI KEBANGSAAN MALAYSIA	5	3.3
UNIVERSITI MALAYA	7	4.6
UNIVERSITI MALAYSIA PAHANG	1	0.7
UNIVERSITI MALAYSIA SABAH	1	0.7

UNIVERSITI OF RAJASTHAN	1	0.7
UNIVERSITI ISLAM ANTRABANGSA MALAYSIA	5	3.3
UNIVERSITI PUTRA MALAYSIA	3	2.0
UNIVERSITI TEKNOLOGI MALAYSIA	3	2.0
UNIVERSITI UTARA MALAYSIA	8	5.3
UNIVERSITI KUALA LUMPUR	1	0.7
UNIVERSITI MALAYSIA TERENGGANU	1	0.7
UNIVERSITI PENDIDIKAN SULTAN IDRIS	1	0.7
UNIVERSITI PERTAHANAN NASIONAL MALAYSIA	1	0.7
UNIVERSITI POLY-TECH MALAYSIA	2	1.3
IPK COLLEGE	1	0.7
JAPAN-MALAYSIAN TEKNIKAL INSTITUTE	1	0.7
KOLEJ POLY-TECH MARA	1	0.7
MADRASAH	1	0.7
POLIMAS	1	0.7
PRESTIGE INSTITUTE OF MANAGEMENT & RESEARCH	2	1.3
INTERNATIONAL MEDICAL UNIVERSITY	1	0.7
CITY UNIVERSITY	1	0.7
Race		
Malay	98	64.9
Chinese	40	26.5
Indian	10	6.6
Sabah	1	0.7
Level of Study		
Diploma	19	12.6
Bachelor's Degree	126	84.1
Master's Degree	4	2.6
Year of Study		
Year 1	9	6.0
Year 2	112	74.2
Year 3	19	12.6
Year 4	7	4.6
Graduated	2	1.3
Field of Study		
Accounting	19	12.6
Engineering	7	4.6
Business	42	27.8
Information Technology / Computer Science	12	7.9
Corporate communication	1	0.7

Science / Development Science	13	8.6
Education	7	4.6
Management	34	22.5
Economy	3	2.0
Halal Industry Management	1	0.7
Humanities	2	1.3
Law	1	0.7
Mathematics	2	1.3
Medicine	2	1.3
Office Management Technology	1	0.7
Urban and Regional Planning	1	0.7

Table 1 shows the demographic profile of the 151 respondents. The sample reveals a notable gender imbalance, with 64.9% female (n = 98) and 34.4% male (n = 52), reflecting broader trends in higher education, particularly in social sciences and business fields. Most respondents (80.8%, n = 122) were aged 21–30, followed by 13.9% (n = 21) aged 18–20, and smaller groups aged 24–26 (4.0%, n = 6) and 27–30 (0.7%, n = 1). This suggests a largely young adult population, likely at the early stages of their tertiary education journey.

Institutional representation was diverse but skewed, with over half (52.3%, n = 79) from Universiti Sains Malaysia (USM), followed by Universiti Teknologi MARA (UiTM) at 14.6% (n = 22), and Universiti Utara Malaysia (UUM) at 5.3% (n = 8). Smaller numbers came from other universities and institutions, each contributing less than 1%. This dominance of USM participants indicates a potential institutional bias.

The ethnic breakdown of respondents generally mirrored Malaysia's national demographics: 64.9% Malay (n = 98), 26.5% Chinese (n = 40), 6.6% Indian (n = 10), and 0.7% Sabah (n = 1). Most respondents (84.1%, n = 126) were enrolled in a Bachelor's program, with smaller percentages pursuing diploma (12.6%, n = 19) and Master's degrees (2.6%, n = 4). This suggests the findings are most representative of undergraduate perspectives.

Respondents were predominantly in their second year of study (74.2%, n = 112), with smaller groups in Year 3 (12.6%, n = 19), Year 1 (6.0%, n = 9), Year 4 (4.6%, n = 7), and graduates (1.3%, n = 2). This concentration indicates that the study primarily captures the views of students mid-way through their undergraduate programs, which may influence their academic and career perspectives.

Field of study data show a concentration in business-related disciplines: business (27.8%, n = 42), management (22.5%, n = 34), and accounting (12.6%, n = 19). Other areas included science/development science (8.6%, n = 13), IT/computer science (7.9%, n = 12), engineering and education (both 4.6%, n = 7), with small numbers from law, humanities, mathematics, medicine, halal industry management, urban planning, and office management technology (0.7–1.3% each).

Table 2. Descriptive statistics, Cronbach's Coefficients Alpha, and Zero order Correlations for all study variables

Variables	1	2	3	4	5	6	7
Awareness of AI	0.872						

AI Application	0.623**	1.336					
Personal Adaptability	0.611**	0.710**	2.139				
Academic Training	0.412**	0.575**	0.651**	1.983			
Job Availability	0.551**	0.716**	0.664**	0.642**	1.330		
Skills towards AI	0.518**	0.665**	0.582**	0.679**	0.735**	0.698	
Careers towards AI	0.489**	0.623**	0.657**	0.664**	0.781**	0.706**	1.226
Number of items	5	5	5	5	5	5	5
Mean	16.1745	16.1745	15.7651	15.3758	15.5772	15.9799	15.6309
Standard Deviation	2.96313	2.54349	2.67468	3.19729	2.55528	2.69000	2.76891

Note: N = 149; *p < .05, **p < .01, ***p < .001. The diagonal entries represent Cronbach's coefficient alpha

Table 2 presents the descriptive statistics, Cronbach's alpha coefficients, and zero- order correlations for all the study variables related to AI awareness, skills, and career readiness. All tested variables demonstrate high levels of reliability, with Cronbach's alpha coefficients ranging from 0.87 to 2.14.

Table 3. Regression Analysis

Job Availability towards AI Adoption (R Change = 0.600)	Beta
Awareness of AI	0.108**
AI in Future Application	0.388***
Confidence in Personal Adaptability	0.136**
Perceived Academic Training	0.286***

Note: N = 149; *p < .05, **p < .01, ***p < .001. The diagonal entries represent Cronbach's coefficient alpha

Skills towards AI Adoption (R2 Change = 0.600)	Beta
Awareness of AI	0.143**
AI in Future Application	0.352***
Confidence in Personal Adaptability	-0.048**
Perceived Academic Training	0.449***

Note: N = 149; *p < .05, **p < .01, ***p < .001. The diagonal entries represent Cronbach's coefficient alpha

Careers towards AI Adoption (R2 Change = 0.600)	Beta
Awareness of AI	0.069**
AI in Future Application	0.206**
Confidence in Personal Adaptability	0.229**
Perceived Academic Training	0.368***

Note: N = 149; *p < .05, **p < .01, ***p < .001. The diagonal entries represent Cronbach's coefficient alpha

Table 3 shows three separate multiple regression analyses assessing how four independent variables. Awareness of AI, AI in Future Application, Confidence in Personal Adaptability, and Perceived Academic Training predict three outcomes: Job Availability, Skills, and Careers toward AI Adoption. Each model explains a substantial amount of variance in the dependent variable, with an R² of 0.600, indicating that 60% of the variability is explained by the combined influence of the predictors.

In the first model (Job Availability), all predictors significantly contribute. AI in Future Application is the strongest predictor ($\beta = 0.388$, $p < .001$), showing that those who see AI playing a bigger future role perceive more job opportunities. Perceived Academic Training follows ($\beta = 0.286$, $p < .001$), indicating that feeling academically prepared is linked to perceiving more AI-related job options. Confidence in Personal Adaptability ($\beta = 0.136$, $p < .01$) and Awareness of AI ($\beta = 0.108$, $p < .01$) also positively influence job availability perceptions.

The second model (Skills towards AI Adoption) highlights Perceived Academic Training as the strongest predictor ($\beta = 0.449$, $p < .001$), underscoring the importance of formal education in developing AI-related skills. AI in Future Application is also a significant predictor ($\beta = 0.352$, $p < .001$), reflecting the motivation to acquire skills when believing in AI's future. Awareness of AI positively contributes ($\beta = 0.143$, $p < .01$), while surprisingly, Confidence in Personal Adaptability is negatively related ($\beta = -0.048$, $p < .05$), perhaps suggesting that overconfidence reduces the perceived need for skill development.

The third model (Careers towards AI Adoption) shows Perceived Academic Training again as the most influential predictor ($\beta = 0.368$, $p < .001$), highlighting the role of academic preparation in career orientation. AI in Future Application ($\beta = 0.206$, $p < .01$) and Confidence in Personal Adaptability ($\beta = 0.229$, $p < .01$) also significantly influence career aspirations, indicating that both future-oriented thinking and self-confidence shape AI-related career paths. Awareness of AI ($\beta = 0.069$, $p < .01$) is the weakest predictor but still contributes.

Overall, these results emphasize that Perceived Academic Training and beliefs about AI's future impact are consistently strong predictors across all three outcomes. While Awareness of AI and Confidence in Personal Adaptability also matter, their influence varies depending on the outcome variable, highlighting the complex interplay between knowledge, confidence, and future orientation in shaping AI-related job, skill, and career perceptions.

DISCUSSION

The findings of this study carried out has reveal a complex situation in which university students in Malaysia are understanding the point between technological advancement and career preparedness. Thus, this discussion interprets and provides a clear view from the empirical results of currently existing literature and on- the-ground realities.

First and foremost, one of the central pillars for this research was about to understand deeply how students perceive the current and future integration and adoption of Artificial Intelligence (AI) within multiple sectors and industries. In line with the literature by (Dwivedi et al., 2021) and (Kee, 2024), our findings has confirmed that students are broadly aware of AI's growing influences, especially in high-demanding sectors which are healthcare, finance and logistics. As evidenced in the literature results, this aligns perfectly with the global trends that forecasts AI's contribution which is up to US\$15.7 trillion towards the world's economy globally by 2030 (Murphy et al., 2021). However, even though the awareness has been spread widely, the level of understanding still varies. As such, students who are already been exposed to industry internships, AI-integrated courseworks such as designing AI-powered lesson plans or even digital media, demonstrate a deeper understanding of the AI's implications, compared to those with no exposure or just minimal exposure. Thus, this statement is in accordance with the argument carried by (Said Alzebeda & Matar, 2024) that past experiences would significantly shape attitudes towards the current and future AI adoption.

Another key pillar of this research is perceived skill preparedness, a crucial factor shaping students' outlook on job readiness. While many respondents reported basic familiarity with digital tools and AI applications, few expressed strong confidence in their cognitive resilience or critical thinking skills to compete in an AI-driven workforce. This aligns with (Loh et al., 2024), who found that only a small percentage of employees and students are actively pursuing AI-related upskilling. Similarly, our findings reflect those of (Gillespie et al., 2023), who noted that although younger generations trust AI, they often lack the structured support and skills to utilize it effectively. Thus, the literature review highlights upon the growing importance of future-proof skills, which are adaptability, the ability for lifelong learning and also critical thinking aspects. Echoing our findings, these competencies have remained undeveloped in many educational contexts. Despite the rise of AI-focused curricula in higher education, students continue to report a disconnect between academic training and industry demands, exactly similar to the information explored by (Kee, Anwar, Gwee, & Ijaz, 2023).

On the other hand, Preliminary analysis of demographic variables reveals notable trends. Science, Technology, Engineering and Mathematics (STEM) students and those in later years of study report higher skill preparedness and greater confidence in adopting AI. In contrast, students from liberal arts fields show lower adaptability and preparedness, with increased uncertainty about career prospects. Not only that, gendered patterns were also clear and evident, where it shows that male students have higher confidence in their AI-related competencies compared to the female students. According to the Organization for Economic Co-operation and Development (OECD, 2023), gender differences in tech education and digital literacy are examples of larger systemic problems that may be reflected in this. The necessity of inclusive educational reform that provides specialized training and mentorship opportunities to disadvantaged groups is highlighted by these findings.

This discussion shows that students' views on the AI-influenced job market are shaped by both their exposure to AI in the world around them and how confident they feel in their own abilities. Although more students are becoming aware of AI's role in the future, many still feel unprepared in terms of skills, emotions, and the support they receive from their

institutions. To overcome these challenges, strong cooperation is needed between universities, industries, and policymakers. By working together with a clear and future-focused plan, we can help students not just thrive in a job market shaped by AI.

CONCLUSION

Important insights can be gained from the study on the variables influencing university students' perceptions of future job market dynamic. The study emphasizes the role of perceived AI adoption and perceived skill preparedness to impact individuals' views on future job market dynamics. It reveals that when individuals are more aware of AI's growing trend and its anticipated future applications in various industries, they are more likely to perceive notable shifts in job availability and a rising demand for future-proof skills. Equally important is students' perception of their skill preparedness. Students who feel confident in their ability to adapt and consider their academic training relevant to real-world needs are more likely to view changes in the job market with a sense of optimism rather than uncertainty. For instance, when individuals believe they are well-equipped with the right skills, the perceived disruption caused by AI is viewed more as an opportunity than a threat. This suggests that enhancing both awareness of AI and readiness to adapt can positively influence how individuals respond to evolving job market conditions.

This study highlights the importance of reassessing current academic programs to ensure they align with evolving industry demands. To narrow the gap between education and employment, institutions must integrate technical literacy and adaptable learning experiences into their academic curricula. Institutions that align academic training with industry needs and emerging technologies not only enhance students' confidence but also keep them informed and responsive to technological developments like AI. Understanding how these factors influence student perceptions can help universities more effectively support and guide students in adapting to workforce change. Promoting both awareness of AI adoption in various industries and preparedness for skills change can positively influence students' perceptions, making them more proactive and optimistic about their career futures.

REFERENCES

- Axios. (2024). *Five questions with IBM's Nickle LaMoreaux*.
<https://www.axios.com/local/austin/2024/03/25/five-questions-with-ibms-nickle-lamoreaux>
- Bahishti (2022, March 1). *The Vital Role of Research Methodology in Addressing the Research Questions*. International Journal of Methodology. [The Vital Role of Research Methodology in Addressing the Research Questions](#)
- Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., Duan, Y., Dwivedi, R., Edwards, J., Eirug, A., Galanos, V., Ilavarasan, P. V., Janssen, M., Jones, P., Kar, A. K., Kizgin, H., Kronemann, B., Lal, B., Lucini, B., & Medaglia, R. (2021). Artificial Intelligence (AI): Multidisciplinary Perspectives on Emerging challenges, opportunities, and Agenda for research, Practice and Policy. *International Journal of Information Management*, 57(101994).
<https://doi.org/10.1016/j.ijinfomgt.2019.08.002>
- Gillespie, N., Lockey, S., Curtis, C., Pool, J., & Akbari, A. (2023). Trust in Artificial Intelligence: a Global Study. *Trust in Artificial Intelligence*.
<https://doi.org/10.14264/00d3c94>
- Hossain, M. D., Rahman, M. H., & Kazi. (2025). Artificial Intelligence in healthcare: Transformative applications, ethical challenges, and future directions in medical

- diagnostics and personalized medicine. *International Journal of Science and Research Archive*, 15(1), 381–390. <https://doi.org/10.30574/ijrsra.2025.15.1.0954>
- Kee, D. M. H. (2024). Enhancing industry-academia collaboration for innovation in the era of Industry 4.0. In N. Joshi, F. Malik, C. Gulati, & A. Dubey (Eds.), *Fostering industry-academia partnerships for innovation-driven trade* (pp. 1–16). IGI Global. <https://doi.org/10.4018/979-8-3693-3096-8.ch001>
- Kee, D. M. H., Anwar, A., Gwee, S. L., & Ijaz, M. F. (2023). Impact of acquisition of digital skills on perceived employability of youth: Mediating role of course quality. *Information*, 14(1), 42. <https://doi.org/10.3390/info14010042>
- Kee, D. M. H., Anwar, A., Shern, L. Y., & Gwee, S. L. (2023). Course quality and perceived employability of Malaysian youth: The mediating role of course effectiveness and satisfaction. *Education and Information Technologies*, 28, 13805–13822. <https://doi.org/10.1007/s10639-023-11737-1>
- Koay, L. K., Sanderan, P., Pong, H. L., Poon, Z. Y., Marimuthu, S., Gisca, A. P., Gupta, M., Saxena, M., & Kee, D. M. H. (2023). AI-assisted food ordering and delivery management system for KFC: Insights from Malaysia, Indonesia and India. *Journal of The Community Development in Asia*, 6(3), 331–345.
- Lakshmi, V., & Kumar, R. (2024). *Future-Proofing Careers in an AI World*. *International Journal of Computer Networks & Information Security*, 16(1), 45–52. <https://www.ijcnis.org/index.php/ijcnis/article/view/6866>
- Lăzăroiu, G., & Rogalska, E. (2023). How generative artificial intelligence technologies shape partial job displacement and labor productivity growth. *Oeconomia Copernicana*, 14(3), 703–706. <https://doi.org/10.24136/oc.2023.020>
- Lim, W.M. (2024). What is quantitative research? An overview and guidelines. *Australasian Marketing Journal*. What Is Quantitative Research? An Overview and Guidelines - Weng Marc Lim, 2024
- Loh, H.-H., Beauchene, V., Lukic, V., & Shenoy, R. (2024, October 8). Five Must-Haves for Effective AI Upskilling. BCG Global. <https://www.bcg.com/publications/2024/five-must-haves-for-ai-upskilling>
- Loke, K. K., Lim, S. H., Teoh, K. B., & Kee, D. M. H. (2024). Preparing tomorrow's workforce: Advancing work-based learning in Malaysian higher education institutions. In N. Joshi, F. Malik, C. Gulati, & A. Dubey (Eds.), *Fostering industry-academia partnerships for innovation-driven trade* (pp. 147–161). IGI Global. <https://doi.org/10.4018/979-8-3693-3096-8.ch011>
- Mauno, S., De Cuyper, N., Kinnunen, U., & De Witte, H. (2020). The conceptualization and measurement of perceived employability: A review. *Journal of Vocational Behavior*, 119, 103377. <https://doi.org/10.1016/j.jvb.2020.103377>
- Mhlanga D (2021) Artificial intelligence in the industry 4.0, and its impact on poverty, innovation, infrastructure development, and the sustainable development goals: lessons from emerging economies? *Sustainability* 13(11):5788 <https://doi.org/10.3390/su13115788>
- Murphy, K., Di Ruggiero, E., Upshur, R. Artificial intelligence for good health: a scoping review of the ethics literature. *BMC Med Ethics* 22, 14 (2021). <https://doi.org/10.1186/s12910-021-00577-8>
- Nguyen, Q. P., & Vo, D. H. (2022). Artificial intelligence and unemployment: An international evidence. *Structural Change and Economic Dynamics*, 61, 101–115. <https://doi.org/10.1016/j.strueco.2022.09.00>
- OECD. (2023). *OECD Employment Outlook 2023: Artificial Intelligence and the Labour Market*. OECD Publishing. https://www.oecd.org/en/publications/oecd-employment-outlook-2023_08785bba-en.html
- Said Alzeabda, & Mohammed A.I. Matar. (2024). Factors affecting citizen intention toward AI acceptance and adoption: the moderating role of government regulations. *Competitiveness Review an International Business Journal Incorporating Journal of Global Competitiveness*. <https://doi.org/10.1108/cr-06-2023-0144>

- Skillssoft. (2025, January 8). 8 Important AI Skills to Build in 2025. <https://www.skillssoft.com/blog/essential-ai-skills-everyone-should-have>
- Sumit Bhatnagar, & None Roshan Mahant. (2024). Unleashing the Power of AI in Financial Services: Opportunities, Challenges, and Implications. *International Journal of Advanced Research in Science, Communication and Technology*, 4(1), 439–448. <https://doi.org/10.48175/ijarsct-19155>
- Verma, S., & Singh, V. (2022). Impact of artificial intelligence-enabled job characteristics and perceived substitution crisis on innovative work behavior of employees from high-tech firms. *Computers in Human Behavior*, 131, 107215. <https://doi.org/10.1016/j.chb.2022.107215>

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