

## ARTIFICIAL INTELLIGENCE AWARENESS AND ITS INFLUENCE ON CAREER DECISION-MAKING AMONG UNIVERSITY STUDENTS

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#### Abstract

This study investigates how university students' career decision-making is impacted by their awareness of artificial intelligence (AI). Few studies have looked at how students' understanding of AI influences their career choices and capacity to adjust to the changing labor market, despite the fact that prior research has concentrated on AI's impact on employment patterns. Analyzing differences in AI awareness and its impact across various academic fields, skill development, and career confidence is the aim of this study. Materials and Methods: A survey of college students and a thorough literature evaluation of peerreviewed sources served as the foundation for this study. To evaluate AI familiarity, opinions about AI-driven employment opportunities, and its impact on career decision-making, a structured questionnaire was disseminated using Google Forms. Stratified random sampling was used to ensure representation across fields among the 106 students who took part in the study. Data were analyzed using IBM SPSS Version 26, employing statistical tests such as the Chi-Square test, Independent Samples T-Test, and One-Way ANOVA to identify significant relationships. Results and Discussion: A statistical study showed that there are notable variations in the ways that job ambitions are influenced by AI awareness. Students with high and low awareness of AI showed significantly different levels of career confidence (p < 0.05), according to the Independent Samples T-Test. Students in AI-intensive fields demonstrated higher career adaptability and confidence in AI-driven job markets, according to the One-Way ANOVA test (p < 0.01). Students who knew more about AI were more likely to look into occupations that involved AI, according to the Chi-Square test, which showed a



strong association (p < 0.05) between AI awareness and career decision determinants.**Conclusion** The study comes to the conclusion that university students' career decisions, skill development, and ability to adjust to changes in the labor market are all greatly impacted by their awareness of AI. Students who are more exposed to AI show greater confidence in occupations powered by AI, but those who are less informed may find it more difficult to explore career options. Universities and legislators should incorporate career counseling, skill-building initiatives, and AI-focused curricula to maximize career readiness. Future studies should examine the ethical implications of AI in professional development, cross-cultural differences, and AI literacy initiatives.

**Keywords:** AI Awareness, Employment Opportunities, AI-Powered Job Matching, Digital Transformation, Automation, AI Education, Cross-Cultural AI Adoption, AI Awareness, Career Decision-Making, University Students, Artificial Intelligence, Workforce Trends, AI Literacy.

### Introduction

In an age where automation and digital transformation are changing businesses, it is critical to comprehend how university students' awareness of AI affects their decision-making about careers.(Kincaid and AI 2025) AI-driven tools are crucial for students getting ready for their future employment since they improve networking, problem-solving, and critical thinking. The study's conclusions add to the conversation on incorporating AI into education by highlighting how it might connect classroom instruction with practical career opportunities.(UNESCO International Centre for Technical and Vocational Education and Training 2021Based on a thorough analysis of research publications from Google Scholar and Web of Science (2020–2024), this study uses keywords such as "AI Awareness and Career Decision-Making" and "Impact of AI on Career Choices." More than 250 of the more than 15,000 research publications that were found were published in Web of Science. Important research indicates that exposure to AI increases adaptability and professional confidence, with students in technology-related sectors demonstrating a higher level of AI integration than those in non-technical fields.(Ojanperä 2024) Additionally, studies highlight AI's



contribution to networking platforms, skill development opportunities, and tailored career recommendations. AI-driven job matching tools and LinkedIn Learning are two examples of AI-powered platforms that assist students in navigating industry trends, learning pertinent skills, and networking with experts.(Spair, n.d.)According to studies, the main elements influencing AI's impact on career decision-making include motivation, networking, skill learning, and individualized career insights. Teachers and politicians must include AI-driven career strategies into academic programs and regularly evaluate students' use of AI technologies in order to optimize AI's benefits. In order to ensure that future professionals have the AI skills they need to thrive in a work market that is becoming more and more reliant on technology, research on AI-driven education and career development seeks to offer useful insights for students, educators, and policymakers.(Jr. 2025)

### **Materials And Methods**

At Saveetha College of Liberal Arts and Sciences, a cross-sectional research design was used in this study on artificial intelligence awareness and its impact on university students' career decision-making. The purpose of the study was to evaluate students' knowledge of AI technologies and how they affect career decisions. Group A consisted of students who had a great deal of knowledge and exposure to AI, while Group B was made up of students who knew very little about AI. To gather quantitative information on AI literacy, opinions about AI-driven job opportunities, and its impact on decision-making, a systematic questionnaire was created. With a total sample size of 106 students, a stratified random sampling technique guaranteed a balanced representation across fields. Data analysis included **descriptive statistics** for summarizing responses and **inferential tests** such as the **Independent T-Test** and **ANOVA** to explore significant associations between AI awareness and career choices.

Google Forms served as the main instrument for gathering data for Group 1, and it included questions about skill development needs, career interests, AI familiarity, and the perceived role of AI in employment prospects. Pilot testing was done on the questionnaire to ensure its validity and applicability. Academic disciplines and involvement in AI-related courses, initiatives, or conversations were taken into consideration while choosing participants. To ensure accessibility, the survey link was shared via messaging apps, student portals, and emails.Group 2 concentrated on getting information from HR specialists, career counselors, AI professors, and business leaders with knowledge of AI-driven labor trends. In order to



ensure voluntary involvement, potential participants were found through university affiliations and professional networks. Invitations were distributed via LinkedIn and email. Expert viewpoints on the changing labor market, the effect of AI on employability, and critical competencies for AI-driven industries were investigated through semi-structured interviews and structured questionnaires. To fit their schedules, participants were given flexible response deadlines, and data security and confidentiality were rigorously upheld.

### **Statistics Analysis**

IBM SPSS Statistics version 26 was used to perform the statistical analysis of this study on artificial intelligence awareness and its impact on university students' career decision-making. Three important tests were used. Significant differences were found when the chi-square test was used to assess the relationship between career interests and AI awareness levels. To find any differences in decision-making confidence, an independent t-test was used to compare the mean career decision scores of students in Group A (high AI knowledge) and Group B (low AI awareness). Furthermore, differences in AI awareness and its effects across academic disciplines were examined using a one-way ANOVA. These statistical techniques offered a thorough assessment of the ways in which AI affects students' career decisions, providing insightful information that helps educators, legislators, and career counselors develop AI-focused curricula and career counseling.

### Results

**Figure 1**: This bar graph represents the mean age of respondents based on their belief in AI as an emerging field that will impact future job markets. Error bars indicate a 95% confidence interval, illustrating variability within each response group.

**Figure 2**: Presents the results of the ANOVA, showing differences in how AI has influenced career aspirations across different groups. The figure would graphically represent these differences, potentially as a bar graph, showcasing the mean influence of AI on career decisions across groups, with error bars indicating variability (e.g., 95% confidence intervals). It highlights statistically significant differences (p = .002) found in the ANOVA.

**Table 1**: Clarifies the results of the Independent Samples T-Test, indicating a significant gender-based difference (p = 0.025 for equal variances assumed, p = 0.003 for equal



variances not assumed). The t-values were 3.210 and 3.198, with mean differences of 1.345 and 1.312, respectively.

**Table 2**: Provides evidence for the variations in career decision-making influenced by AI using an ANOVA test. The F-value is 6.921, and the significant p-value is 0.002 (<0.01), indicating statistically significant differences between the groups.

### Discussion

The investigation offers valuable insights into university students' awareness of AI and how it affects their decision-making regarding careers. There were substantial differences between male and female respondents' assessments of AI's impact on future employment markets, as indicated by the independent t-test (p = 0.025 for equal variances assumed, p = 0.003 for equal variances not assumed).Furthermore, when examining how AI has affected job objectives, the ANOVA test yielded a highly significant p-value of 0.002, indicating substantial differences across response groups. Additionally, the chi-square test showed a significant correlation (p = 0.002) between the variables affecting AI-related employment choices. The linear-by-linear association test (p = 0.786) did not show a strong linear trend, but the likelihood ratio test (p = 0.001) further supported this significant relationship.All things considered, these results point to important trends in how college students view AI's influence on their choice of careers.

## Limitation Of The Study

There are several restrictions on this study on university students' awareness of artificial intelligence and how it affects their decision-making about careers. The findings' generalizability may be constrained by the sample size and demographic variety. Applicability may also be impacted by regional and cultural variations in AI awareness and employment market developments. The study's conclusions can become old in the future due to AI's quick evolution. Biases may be introduced by self-reported data, and outside variables such as industry demand and economic conditions may have an impact on job choices outside the purview of the study.

## **Future Research**

Future Research on AI Awareness and How It Affects University Students' Career Decision-Making For deeper understanding, students should investigate fresh angles. Examining the



effects of AI-powered career counseling tools on students' choices can yield insightful results. Analyzing how students' confidence in AI-related employment is shaped by their level of AI literacy may provide fresh insights. Cross-cultural comparisons could show how various educational frameworks and societal perspectives affect the uptake of AI careers. It would also be advantageous to evaluate how well AI-focused training courses and certifications improve professional readiness.

### **Tables And Figures**

Table 1: Clarifies the results of the Independent Samples T-Test on the significant genderbased difference (p = 0.025) for equal variances assumed, p = 0.003 for equal variances not assumed). The t-values were 3.210 and 3.198, with mean differences of 1.345 and 1.312, respectively.

	Independent Samples Test	
	Equal variances assumed	Equal variances not assumed
Sig.	0.025	
Т	3.210	3.198
Sig. (2-tailed)	0.002	0.003
Mean Difference	1.345	1.312
Std. Error	0.210	0.205
Difference		

**Fig. 1:** This bar graph represents the mean age of respondents based on their belief in AI as an emerging field that will impact future job markets. Error bars indicate a 95% confidence



group.

Table 2: Table showing ANOVA the p-value is 0.002 (0.002 < 0.01), indicating a highly significant result. The F-value of the statistical analysis is 6.921, demonstrating a meaningful difference among groups.

	ANOVA	
	Between	Within
	Groups	Groups
Mean	2.839	0.409
Square		
F	6.921	
Sig.	0.002	

Fig. 2: This simple bar graph represents the mean age of respondents across different responses to *"How has AI influenced your career aspirations?"*, with error bars showing a 95% confidence interval.



# ASET JOURNAL OF MANAGEMENT SCIENCE Peer Reviewed & Open Access Journal

ISSN : 2584 - 220X (Online) | RNI : Applied | Frequency : Bi-Monthly



#### Conclusion

In conclusion, university students' awareness of artificial intelligence (AI) and how it affects their choice of employment underscores the technology's increasing importance in determining the trends of the workforce in the future. Higher AI awareness increases a student's likelihood of investigating AI-related employment options, upgrading their skills through pertinent coursework, and adjusting to the changing labor market. According to the study's findings, career planning requires AI literacy, and students' decisions are influenced by elements like automation, employment security, and innovation chances. However, obstacles including false beliefs about AI, limited access to AI education, and a lack of clarity regarding the long-term effects of AI could prevent students from making well-informed employment choice

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