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# Student Perceptions, Trust and Willingness to Use Artificial Intelligence for Career Guidance in Higher Education

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**Abstract**

Artificial Intelligence (AI) is increasingly used in career counselling, yet limited questionnaire-based evidence exists on how students perceive and accept it. This study examines students' awareness and experience of AI-based career guidance, its perceived usefulness, trust, ethical and privacy concerns, and willingness to use it. A descriptive, quantitative design was adopted. Data were collected through a structured Google Form from 206 undergraduate and postgraduate students of JG University, Ahmedabad, selected by convenience sampling. All five constructs showed high internal consistency ($Cronbach's\ alpha$ 0.909 $to$ 0.960). Prior use of digital or online career-guidance services was reported by 60.7% of respondents, and 79.1% had used an AI tool or chatbot for career information. Mean scores for usefulness, trust, ethical concerns, and willingness to use were all above the neutral value of 3 on a five-point scale, mostly between 3.6 and 3.9. Protection of personal information was ranked the most important selection factor. A chi-square test showed a significant but modest association between gender and previous use of digital career-guidance services ($\chi^2 = 8.173, df = 2, p = 0.017, Cramér's\ V = 0.199$), with more female than male respondents reporting prior use. Multiple regression showed that perceived usefulness, trust, ethical concerns, and importance of features together explained 75.8% of the variance in willingness to use AI career guidance ($R^2 = 0.758, F(4, 201) = 157.674, p < 0.001$). Ethical, fairness and privacy concerns were the strongest predictor (β = 0.323), followed by importance of features ($\beta = 0.309$), trust ($\beta = 0.230$), and usefulness ($\beta = 0.133$). The findings suggest that acceptance depends on privacy protection, transparency, and fairness as much as on usefulness.

**Keywords:** *Artificial Intelligence; career guidance; higher education; student perception; trust and transparency; ethical and privacy concerns; willingness to use; multiple regression*

## 1. Introduction

Career decisions are among the most important choices students make during higher education. The literature reviewed for this study shows that AI is increasingly applied to support these decisions. Machine learning, chatbots, artificial neural networks, and intelligent career guidance systems can improve career prediction, matching, and decision-making through personalised support **(Muhammad et al., 2024)**. Researchers have built AI-driven systems that use academic performance, interests, skills, personality, educational background, and aspirations to produce personalised recommendations **(Bahalkar et al., 2024; Kulugh et al., 2025).**

The same literature also raises cautions. Ethical considerations, transparency, policy support, data quality, fairness, interpretability, privacy, and bias mitigation are repeatedly identified as requirements for effective AI-based career guidance **(Bahalkar et al., 2024; Muhammad et al., 2024; Trujillo et al., 2025)**. Evidence on students' own attitudes is thinner. One study found that traditional motivations such as intrinsic interest stayed stronger than AI-related motivations among student teachers **(Martínez-Moreno & Petko, 2024)**, and another found that AI anxiety negatively influenced college students' career decisions **(Duan et al., 2026).**

This study therefore asks how students at a university perceive AI-based career guidance. It looks at what they know and have used, how useful and trustworthy they find it, what ethical and privacy concerns they hold, and what shapes their willingness to use it.



## 2. Literature Review

**AI-based career guidance systems: Muhammad et al. (2024)** reviewed 14 empirical studies and concluded that machine learning, chatbots, neural networks, and intelligent guidance systems can improve career prediction, matching, and decision-making through personalised support. **Bahalkar et al. (2024)** built a deep learning recommendation model from the data of 1,000 students, using academic performance and personal aspirations, and reported an R-squared of 0.8488. **Kulugh, Aondover, and Faki (2025)** developed a personalised system based on interests, skills, personality, educational background, and aspirations. Functional and user acceptance testing with high school and undergraduate students showed its potential to improve career decision-making. **Trujillo, Pozo, and Suntaxi (2025)** reviewed 38 studies and found Random Forest, Support Vector Machine, and Neural Networks to be the most common techniques, with academic performance, personal interests, and demographic characteristics as major predictors. These studies mainly address the usefulness side of AI guidance.

**Trust, transparency, ethics and fairness:** The same studies stress conditions for acceptable AI guidance. **Muhammad et al. (2024)** highlight ethical considerations, transparency, and policy support. **Bahalkar et al. (2024)** emphasise privacy, transparency, and bias mitigation. **Trujillo et al. (2025)** point to data quality, fairness, and interpretability as challenges. These are the dimensions of trust and ethics that this study measures from the student's side.

**Students' attitudes toward AI and career decisions: Martínez-Moreno and Petko (2024)** surveyed 183 student teachers in Switzerland. Traditional motivations, especially intrinsic interest, were stronger than AI-related motivations, although a small group showed considerable interest in AI and digital transformation. **Duan et al. (2026)** studied 315 college students and found that AI anxiety negatively influenced career decisions, partly through career adaptability, which points to the importance of AI literacy. Neither study measured willingness to use AI career guidance directly.

**Factors behind career choices and institutional support:** Earlier work on computing-related education shows what shapes students' choices and persistence. **Mata-López and Tobón (2019)** reviewed 72 publications and identified personal interests, family support, curriculum relevance, educational quality, technological developments, and employment opportunities as important, and recommended stronger career awareness. **McGee et al. (2017)** found, among 418 students, that perceived relevance, expectancy of success, and perceived value influenced further enrolment. **Rashid et al. (2015)** linked student dropout to financial constraints, personal commitments, and limited academic support, and **Varga and Sátán (2021)** showed that pre-enrolment indicators help identify students who need support. Together these studies point to the value of accessible guidance and institutional support, which AI tools may extend.

### Research gap

Existing literature mainly develops AI career guidance systems, reviews applications, or studies AI anxiety. Comparatively little empirical evidence comes from direct questionnaire-based investigation of students' awareness and perceptions of AI-based career guidance, in particular perceived usefulness, trust in AI-generated recommendations, ethical concerns, and willingness to adopt. Previous studies also call for practical implementation in educational institutions with attention to ethics, transparency, explainability, user experience, and long-term effectiveness. This study addresses the gap through an empirical investigation of student perceptions and acceptance.

## 3. Objectives, Hypotheses and Conceptual Framework

### Objectives of the Study

1. To assess students' awareness and experience of AI-based career guidance.
2. To evaluate students' perceived usefulness of AI-based career guidance for career planning and decision-making.
3. To assess students' trust in AI-based career guidance, particularly the transparency and reliability of AI-generated recommendations.
4. To examine students' ethical and privacy concerns regarding AI-based career guidance.
5. To assess students' willingness to use AI-based career guidance and the factors they consider important when choosing such a system.
6. To examine whether there is a significant association between gender and previous use of digital or online career-guidance services.
7. To examine the influence of perceived usefulness, trust, ethical concerns, and perceived importance of AI career-guidance features on willingness to use AI-based career-guidance systems.



**Hypotheses**

$H_{01}$ **(Objective 6):** There is no significant association between gender and previous use of digital or online career-guidance services.

$\boldsymbol{H_{11}}$ **(Objective 6):** There is a significant association between gender and previous use of digital or online career-guidance services.

$\boldsymbol{H_{02}}$ **(Objective 7):** Perceived usefulness, trust, ethical concerns, and importance of AI career-guidance features have no significant influence on willingness to use AI-based career guidance.

$\boldsymbol{H_{12}}$ **(Objective 7):** Each of the four predictors has a significant influence on willingness to use. This is tested separately as usefulness, trust, transparency and reliability, ethical, fairness and privacy concerns, and importance of features.

**Conceptual framework.**

Four independent variables, namely perceived usefulness, trust, transparency and reliability, ethical, fairness and privacy concerns, and importance of AI career-guidance features, are modelled as predictors of one dependent variable, willingness to use AI-based career guidance. Awareness, prior experience, and gender are examined descriptively or through the association test and are not entered in the regression model.

## 4. Research Methodology

**Research design and approach:** A descriptive, quantitative design was used to capture and document the current state of student awareness, trust, ethical perceptions, and adoption readiness without manipulating any variable.

**Data sources:** Primary data came from undergraduate and postgraduate students through a structured questionnaire on demographic profile, prior AI exposure, perceived usefulness, transparency expectations, privacy concerns, and ranking preferences. Secondary data came from peer-reviewed journals, higher education reports, institutional records of JG University, and foundational literature on AI adoption and educational career counselling.

**Research instrument:** A structured questionnaire was administered as a Google Form. Four constructs were measured on a five-point agreement scale (1 = Strongly Disagree to 5 = Strongly Agree) with five items each: perceived usefulness, trust, transparency and reliability, ethical, fairness and privacy concerns, and willingness to use. Importance of AI career-guidance features was measured with seven items on a five-point importance scale (1 = Not Important at All to 5 = Extremely Important). Five selection factors were ranked from 1 (Most Important) to 5 (Least Important), and scored by weighting: rank 1 = 5 points down to rank 5 = 1 point, with each factor's score being the sum of frequency × weight.

**Reliability:** Cronbach's alpha was 0.911 for perceived usefulness, 0.922 for trust, transparency and reliability, 0.909 for ethical, fairness and privacy concerns, 0.913 for willingness to use, and 0.960 for importance of features. All exceed the commonly used 0.70 threshold. Values above 0.90, and especially 0.960, can indicate overlapping items, which is noted as a limitation.

**Sampling design:** The frame was enrolled undergraduate and postgraduate students of JG University, Ahmedabad, across Management/Commerce, Computer Science/IT, and Engineering/Science programmes. The sampling unit was the individual student. The sample size was 206, selected by convenience sampling among students reachable through online forms.

**Data collection procedure:** The questionnaire was distributed through Google Forms, WhatsApp, email, and other student communication channels. Respondents were informed of the study's purpose and participated voluntarily.

**Data analysis:** Frequencies and percentages described the respondent profile and categorical responses. Mean scores described the Likert-scale constructs, and weighted scores described the ranking question. A chi-square test of independence examined the association between gender and previous use of digital or online career-guidance services, with Cramér's V as the effect size. Multiple linear regression examined the influence of the four predictors on willingness to use, with multicollinearity checked through tolerance and VIF and autocorrelation through the Durbin-Watson statistic. A 5% significance level was used throughout. Frequencies and percentages were computed in Microsoft Excel, and the chi-square test of independence and the multiple regression analysis were performed in SPSS.



## 5. Data Analysis and Results

**Respondent profile**

**Demographic and academic profile (N = 206)**

| Particulars | Category | Frequency | Percentage |
|---|---|---|---|
| Age Interval | 18–20 | 95 | 46.1 |
| | 21–23 | 64 | 31.1 |
| | Below 18 | 47 | 22.8 |
| Gender | Female | 126 | 61.2 |
| | Male | 80 | 38.8 |
| Level of Study | Postgraduate | 73 | 35.4 |
| | Undergraduate | 133 | 64.6 |
| Current Study | Management / Commerce | 98 | 47.6 |
| | Science / Engineering | 53 | 25.7 |
| | Computer Science / Information Technology | 55 | 26.7 |

The demographic and academic profile of the 206 respondents indicates that the largest age group belongs to 18–20 years, accounting for 46.1% (95 respondents), followed by 21–23 years with 31.1% (64 respondents). Respondents below 18 years constitute 22.8% (47 respondents). Regarding gender, female respondents represent 61.2% (126 respondents), while male respondents account for 38.8% (80 respondents).

In terms of educational background, undergraduate students constitute the majority at 64.6% (133 respondents), whereas postgraduate students represent 35.4% (73 respondents). With respect to the current field of study, Management/Commerce students form the largest group at 47.6% (98 respondents), followed by Computer Science/Information Technology at 26.7% (55 respondents) and Science/Engineering at 25.7% (53 respondents).

Overall, the respondent profile indicates that the study predominantly represents students aged 18–20 years, female respondents, undergraduate students, and those pursuing Management/Commerce programmes.

**Objective 1: To assess students' awareness and experience of AI-based career guidance.**

**Previously used any digital or online career-guidance**

| | Frequency | Percentage |
|---|---|---|
| Not sure | 18 | 8.70 |
| Yes | 125 | 60.70 |
| No | 63 | 30.60 |
| Grand Total | 206 | 100.00 |

The findings indicate that 60.7% (125) of respondents had previously used digital or online career-guidance services, while 30.6% (63) had no such experience. The remaining 8.7% (18) were unsure. This suggests that a majority of respondents had prior exposure to digital career-guidance platforms.

**Familiarity with AI for career guidance**

| | Frequency | Percentage |
|---|---|---|
| Moderately familiar | 83 | 40.30 |
| Not at all familiar | 20 | 9.80 |
| Slightly familiar | 38 | 18.40 |
| Very familiar | 46 | 22.30 |
| Extremely familiar | 19 | 9.20 |
| Grand Total | 206 | 100.00 |

The findings reveal that 40.3% (83) of respondents were moderately familiar with the use of AI for career guidance, followed by 22.3% (46) who were very familiar and 18.4% (38) who were slightly familiar. Meanwhile, 9.8% (20) were not at all familiar, while 9.2% (19) were extremely familiar. Overall, the results indicate that most respondents had at least a moderate level of familiarity with AI-based career guidance.

**Aware about AI-based career-guidance**

| Statements | Frequency |
|---|---|
| Career information and guidance | 119 |
| Career matching based on skills or interests | 113 |
| Chatbots for career guidance | 56 |
| I am not aware of any of these | 26 |
| Personalised career suggestions | 91 |



| | |
|---|---|
| Subject or course recommendations | 115 |
| Career recommendations | 78 |
| Grand Total | 598 |

The findings indicate that respondents were most aware of AI-based career guidance for career information and guidance (119 responses), followed by subject or course recommendations (115) and career matching based on skills or interests (113). Awareness was also reported for personalised career suggestions (91), career recommendations (78), and chatbots for career guidance (56). However, 26 respondents indicated that they were not aware of any of these applications. Overall, respondents demonstrated awareness of various AI-based career-guidance applications, particularly those related to career information, course selection, and career matching.

***Note:*** *Since respondents could select multiple options, the total frequency (598) exceeds the sample size of 206. These frequencies should not be interpreted as percentages of respondents.*

**Used an AI tool or chatbot for career advice**

| | Frequency | Percentage |
|---|---|---|
| Yes | 163 | 79.10 |
| Not sure | 15 | 7.30 |
| No | 28 | 13.60 |
| Grand Total | 206 | 100.00 |

The findings indicate that 79.1% (163) of respondents had used an AI-based tool or chatbot to obtain career-related information or advice, while 13.6% (28) had not used such tools. The remaining 7.3% (15) were unsure. Overall, the results suggest a considerable level of actual usage of AI-based tools among respondents for career-related information and guidance.

**Objective 2: To evaluate students' perceived usefulness of AI-based career guidance for career planning and decision-making. Perceived usefulness, personalisation, career information, decision support**

**Main reason for using an AI-based career-guidance system**

| | Frequency | Percentage |
|---|---|---|
| To match my skills or interests with careers | 65 | 31.60 |
| To obtain information about career options | 38 | 30.10 |
| To obtain personalised career recommendations | 62 | 18.40 |
| To identify suitable careers | 24 | 11.70 |
| To support career decision-making | 17 | 8.30 |
| Grand Total | 206 | 100.00 |

The findings reveal that the primary reason for using AI-based career-guidance systems was to match personal skills or interests with suitable careers (65 respondents), followed closely by obtaining personalised career recommendations (62 respondents). Another 38 respondents used these systems to obtain information about career options, while 24 used them to identify suitable careers and 17 to support career decision-making. Overall, the results indicate that respondents primarily use AI-based career-guidance systems for personalised recommendations and matching their skills and interests with career opportunities.

**Perceived Usefulness of AI-Based Career Guidance**
**1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree**

| Statements | Average |
|---|---|
| AI can help students identify suitable career options. | 3.922 |
| AI can provide career recommendations based on individual interests and skills | 3.752 |
| AI-based career guidance can provide personalised career support. | 3.854 |
| AI-based career guidance can provide useful career information. | 3.791 |
| AI-based recommendations can support students in making career decisions. | 3.850 |

The findings indicate that respondents generally perceived AI-based career guidance as useful. The highest mean score was recorded for identifying suitable career options (3.922), followed by personalised career support (3.854) and support in career decision-making (3.850). Providing useful career information received a mean score of 3.791, while career recommendations based on individual interests and skills recorded the lowest mean score (3.752). Overall, all statements recorded mean scores above the neutral level of 3, indicating a favourable perception of the usefulness of AI-based career guidance among respondents.



**Objective 3: To assess students' trust in AI-based career guidance, particularly regarding the transparency and reliability of AI-generated recommendations. Trust, transparency, reliability, explainability**

**Trust, Transparency and Reliability**
**1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree**

| Statements | Average |
|---|---|
| I would be more willing to use AI career guidance if its recommendations were transparent. | 3.709 |
| I would consider the reliability of an AI-generated career recommendation before using it. | 3.626 |
| I would expect an AI career-guidance system to provide consistent recommendations. | 3.733 |
| I would trust an AI system more if it explained how it reached a career recommendation. | 3.607 |
| I would want to understand the information used by AI to generate my career recommendation. | 3.738 |

The findings indicate that respondents demonstrated a favourable perception towards trust, transparency, and reliability in AI-based career guidance. The highest mean score was recorded for understanding the information used by AI to generate career recommendations (3.738), followed by the expectation of consistent recommendations (3.733). Transparency in recommendations recorded a mean score of 3.709, while considering the reliability of AI-generated recommendations scored 3.626. The lowest mean score was observed for trusting AI systems that explain how recommendations are generated (3.607). Overall, the results suggest that respondents value transparency, consistency, and reliable information when considering the use of AI-based career-guidance systems.

**Objective 4: To examine students' ethical and privacy concerns regarding the use of AI-based career guidance. Privacy, fairness, bias, ethical concerns**

**Ethical, Fairness and Privacy Concerns**
**1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree**

| Statements | Average |
|---|---|
| Ethical considerations are important when implementing AI-based career guidance. | 3.961 |
| Fairness is important when AI recommends careers to students. | 3.859 |
| I am concerned about the privacy of personal information provided to an AI career-guidance system. | 3.718 |
| I am concerned that AI-generated career recommendations may contain bias. | 3.801 |
| Students should be informed about how their personal data are used by AI career-guidance systems. | 3.888 |

The findings indicate that respondents generally expressed strong awareness of ethical, fairness, and privacy considerations in AI-based career guidance. Ethical considerations received the highest mean score (3.961), followed by the need to be informed about the use of personal data (3.888) and fairness in AI-generated career recommendations (3.859). Concerns regarding potential bias in AI recommendations recorded a mean score of 3.801, while privacy concerns received a mean score of 3.718. Overall, the results highlight the importance respondents place on ethical practices, fairness, transparency, and protection of personal information when implementing AI-based career-guidance systems.

**Objective 5: To assess students' willingness to use AI-based career guidance and identify the factors they consider important when choosing such a system. Willingness to use, preferred features, selection priorities**

**Willingness to Use AI-Based Career Guidance**
**1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree**

| Statements | Average |
|---|---|
| I would be willing to use an AI career-guidance system if it protected my personal information. | 3.816 |
| I would be willing to use AI career guidance if its recommendations were transparent and understandable. | 3.816 |
| I would consider using an AI-based career-guidance system. | 3.631 |
| I would use AI career guidance to explore different career options. | 3.709 |
| I would use AI-generated career recommendations as one source of career information. | 3.767 |

The findings indicate that respondents showed a favourable willingness to use AI-based career-guidance systems. The highest mean scores (3.816) were recorded for willingness to use AI when personal information is protected and recommendations are transparent and understandable. Using AI-generated recommendations as an additional source of career information received a mean score of 3.767, followed by exploring different career options (3.709). The lowest



mean score was observed for general willingness to consider using an AI-based career-guidance system (3.631). Overall, the results suggest a positive inclination among respondents towards adopting AI-based career guidance, particularly when privacy and transparency are ensured.

**Factors Important When Choosing an AI Career-Guidance System**
**1 = Most Important 2 = Second Most Important 3 = Third Most Important 4 = Fourth Most Important 5 = Least Important**

| Factors | 1 | 2 | 3 | 4 | 5 | Score | Rank |
|---|---|---|---|---|---|---|---|
| Accuracy/reliability of career recommendations | 43 | 44 | 60 | 30 | 18 | 649 | 4 |
| Transparency of recommendations | 30 | 61 | 56 | 34 | 12 | 642 | 5 |
| Personalisation according to individual interests and skills | 44 | 54 | 48 | 32 | 16 | 660 | 2 |
| Fairness and absence of bias] | 48 | 49 | 42 | 38 | 16 | 654 | 3 |
| Protection of personal information | 55 | 43 | 46 | 27 | 22 | 661 | 1 |

The findings indicate that protection of personal information was the most important factor when selecting an AI-based career-guidance system, securing the first rank with a score of 661. Personalisation according to individual interests and skills ranked second (660), followed by fairness and absence of bias (654). Accuracy and reliability of career recommendations secured the fourth rank (649), while transparency of recommendations ranked fifth (642). Overall, the results suggest that respondents prioritise data privacy, personalised recommendations, and fairness when choosing an AI-based career-guidance system.

**Importance of AI Career-Guidance Features**
**1 = Not Important at All 2 = Slightly Important 3 = Moderately Important 4 = Very Important 5 = Extremely Important**

| Factors | Mean |
|---|---|
| Personalised career recommendations | 3.646 |
| Career recommendations based on interests | 3.684 |
| Career recommendations based on skills | 3.743 |
| Clear explanation of recommendations | 3.786 |
| Information about possible career options | 3.816 |
| Fair and unbiased recommendations | 3.796 |
| Protection of personal information | 3.796 |

The mean scores indicate that respondents consider all the listed features of AI-based career guidance to be moderately to highly important, as all means are above 3. Information about possible career options received the highest mean (3.816), followed by fair and unbiased recommendations and protection of personal information (3.796 each). Personalised career recommendations received the lowest mean (3.646), although it was still rated above the moderate importance level. Overall, respondents place importance on career information, fairness, privacy protection, and clear explanations when using AI-based career-guidance systems.

**Objective 6: To examine whether there is a significant association between gender and previous use of digital or online career-guidance services.**

**Chi-Square Test**

$H_{01}$**:** There is no significant association between gender and previous use of digital or online career-guidance services.
$\boldsymbol{H_{11}}$**:** There is a significant association between gender and previous use of digital or online career-guidance services.

| | | | Previously use of digital or online career-guidance service | | | Total |
|---|---|---|---|---|---|---|
| | | | Yes | No | Not Sure | |
| Gender | Male | Count | 39 | 33 | 8 | 80 |
| | | Expected Count | 48.5 | 24.5 | 7.0 | 80.0 |
| | Female | Count | 86 | 30 | 10 | 126 |
| | | Expected Count | 76.5 | 38.5 | 11.0 | 126.0 |
| Total | | Count | 125 | 63 | 18 | 206 |
| | | Expected Count | 125.0 | 63.0 | 18.0 | 206.0 |



| Chi-Square Tests | | | |
|---|---|---|---|
| | Value | Df | Asymp. Sig. (2-sided) |
| Pearson Chi-Square | 8.173[a] | 2 | .017 |
| Likelihood Ratio | 8.121 | 2 | .017 |
| Linear-by-Linear Association | 5.337 | 1 | .021 |
| N of Valid Cases | 206 | | |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.99. | | | |

Since the p-value is less than the 5% level of significance (0.05), the null hypothesis is rejected. Therefore, there is a statistically significant association between gender and previous use of digital or online career-guidance services. The crosstabulation indicates that 86 out of 126 female respondents (68.3%) reported previous use, compared with 39 out of 80 male respondents (48.8%). Thus, a higher proportion of female respondents reported having previously used such services.

**Objective 7: To examine the influence of perceived usefulness, trust, ethical concerns and perceived importance of AI career-guidance features on respondents' willingness to use AI-based career-guidance systems.**

$\boldsymbol{H_{02}}$**:** Perceived usefulness, trust, ethical concerns, and importance of AI career-guidance features have no significant influence on willingness to use AI-based career guidance.
$\boldsymbol{H_{12}}$**:** Each of the four predictors has a significant influence on willingness to use. This is tested separately as usefulness, trust, transparency and reliability, ethical, fairness and privacy concerns, and importance of features.

**Multiple Regression**

| Model Summary[b] | | | | | |
|---|---|---|---|---|---|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 1 | .871[a] | .758 | .754 | .42907 | 1.893 |
| a. Predictors: (Constant), Importance of AI Career-Guidance Features, Perceived Usefulness of AI-Based Career Guidance, Ethical, Fairness and Privacy Concerns, Trust, Transparency and Reliability | | | | | |
| b. Dependent Variable: Willingness to Use AI-Based Career Guidance | | | | | |

| ANOVA[a] | | | | | |
|---|---|---|---|---|---|
| Model | Sum of Squares | Df | Mean Square | F | Sig. |
| Regression | 116.11 | 4 | 29.028 | 157.674 | .000[b] |
| Residual | 37.004 | 201 | 0.184 | | |
| Total | 153.114 | 205 | | | |
| a. Dependent Variable: Willingness to Use AI-Based Career Guidance | | | | | |
| b. Predictors: (Constant), Importance of AI Career-Guidance Features, Perceived Usefulness of AI-Based Career Guidance, Ethical, Fairness and Privacy Concerns, Trust, Transparency and Reliability | | | | | |

| Coefficients[a] | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
| | B | Std. Error | Beta | | | Tolerance | VIF |
| (Constant) | 0.14 | 0.152 | | 0.93 | 0.35 | | |
| Perceived Usefulness of AI-Based Career Guidance | 0.14 | 0.06 | 0.133 | 2.3 | 0.02 | 0.357 | 2.8 |
| Trust, Transparency and Reliability | 0.22 | 0.059 | 0.23 | 3.71 | 0 | 0.312 | 3.2 |
| Ethical, Fairness and Privacy Concerns | 0.33 | 0.058 | 0.323 | 5.64 | 0 | 0.367 | 2.73 |
| Importance of AI Career-Guidance Features | 0.27 | 0.042 | 0.309 | 6.42 | 0 | 0.521 | 1.92 |



a. Dependent Variable: Willingness to Use AI-Based Career Guidance

**Model fit:** $R = 0.871$, $R^2 = 0.758$, $adjusted\ R^2 = 0.754$, standard error of the estimate = 0.429, $Durbin - Watson = 1.893$. **ANOVA:** $F(4, 201) = 157.674, p < 0.001$ ($regression\ SS = 116.110, residual\ SS = 37.004, total\ SS = 153.114$).

The fitted equation is: $Willingness = 0.14 + 0.14\ (Usefulness) + 0.22\ (Trust) + 0.33\ (Ethical\ concerns) + 0.27\ (Features)$.

The four predictors together explain about 75.8% of the variance in willingness to use AI career guidance, and the adjusted $R^2$ of 0.754 shows the explanatory power holds after adjusting for the number of predictors. The overall model is significant. Each predictor is significant and the null hypothesis is rejected. Holding the other variables constant, a one-point increase in ethical, fairness and privacy concerns raises willingness by 0.33 points, importance of features by 0.27 points, trust by 0.22 points, and usefulness by 0.14 points. Standardised betas show ethical concerns (0.323) and importance of features (0.309) as the strongest predictors, followed by trust (0.230) and usefulness (0.133). The constant is not significant (p = 0.350) and has no practical meaning here. VIF values (1.92 to 3.20, tolerance 0.312 to 0.521) show no serious multicollinearity, and a Durbin-Watson of 1.893 suggests no problematic autocorrelation.
The ethical items measure how important ethics, fairness, and data protection are to respondents, as well as their concern about bias and privacy. The positive effect therefore means that students who hold stronger ethical expectations are also more willing to use AI career guidance, not that worry itself increases use. This is consistent with the finding that willingness was highest when privacy and transparency were assured.

## 6. Discussion

The results show that students at JG University already know about and use AI for career purposes, and that they view it favourably but conditionally.
**Awareness and use:** Prior use of digital career guidance (60.7%) and of AI tools or chatbots for career advice (79.1%) was high, and 71.8% were at least moderately familiar with AI for career guidance. Awareness was concentrated in information, course recommendation, and career matching, while chatbots were the least recognised application (27.2%), even though students were using AI tools in practice. This suggests that familiarity with specific AI career-guidance functions is uneven even where general use is common.
**Usefulness and the reasons for use:** The main reasons for use were matching skills and interests with careers and obtaining personalised recommendations, and the usefulness statements all scored above neutral (3.752 to 3.922). This is in line with the research on AI guidance systems, which stresses personalised matching and recommendations based on interests, skills, and aspirations (Bahalkar et al., 2024; Kulugh et al., 2025; Muhammad et al., 2024).
**Trust, ethics and privacy:** Students rated ethical considerations (3.961), being informed about data use (3.888), and fairness (3.859) most highly, and ranked protection of personal information first among selection factors. These results match the concerns identified in earlier studies, namely privacy, transparency, bias mitigation, fairness, and interpretability (Bahalkar et al., 2024; Muhammad et al., 2024; Trujillo et al., 2025). Trust items had the lowest means of the constructs (3.607 to 3.738), so students are open to AI guidance but not uncritical. The lowest item, trusting AI more when it explains its reasoning, is still above neutral, which supports the call for explainability.
**Willingness to use:** Willingness was positive but moderate (3.631 to 3.816), highest when privacy and transparency are assured and lowest for the general statement of considering AI guidance. Students were willing to use AI recommendations as one source of career information (3.767), which supports using AI alongside existing counselling. Duan et al. (2026) found that AI anxiety lowered career decision-making among college students. This study did not measure anxiety, so a direct comparison is not possible. It does show that, in this sample, willingness rises when protections are in place. Martínez-Moreno and Petko (2024) found that intrinsic interest outweighed AI-related motivations for choosing a teaching career. This study did not measure career motivations and cannot confirm or challenge that result.
**Gender and prior use:** Female respondents were more likely to have used digital career-guidance services. The association is statistically significant but small to moderate (V = 0.199). The data do not explain why, and the paper's literature gives no basis for an explanation, so this should be tested in future work.
**What drives willingness:** The regression explains a large share of the variance ($R^2 = 0.758$). Ethical expectations and the importance of features carried the largest standardised effects, followed by trust, and usefulness had the smallest effect. This points to a pattern in which students' decision to use AI guidance is shaped as much by whether it is ethical, fair, private, and explainable as by whether it is useful. The result echoes the literature's argument that ethics, transparency, and policy support are conditions for effective AI career counselling (Muhammad et al., 2024).



## 7. Recommendations

**Make data protection the first design requirement.** Protection of personal information was ranked first, and willingness was highest when it is assured. Students should be clearly informed how their data are used (mean 3.888).

**Build transparency and explainability into recommendations.** Students want to understand the information behind a recommendation and expect consistency, and willingness rises when recommendations are transparent and understandable.

**Address fairness and bias.** Students rated fairness and ethical considerations as important and expressed concern about bias (3.801). Institutions adopting such tools should be able to state how bias is checked.

**Focus on personalised, skills- and interest-based career information.** These were the main reasons for use, and career information received the highest feature-importance score (3.816).

**Present AI as one source among several.** Students were willing to use AI recommendations as one source of career information, so institutions can combine AI tools with existing counselling.

**Raise awareness of AI career-guidance functions.** Chatbot-based guidance was the least recognised function (27.2%), and 12.6% of respondents knew none of the listed applications.

**Reach students who have used digital guidance less.** Male respondents reported lower prior use, so outreach and orientation should not assume equal uptake.

**Address ethics, trust, and feature quality together.** All four predictors significantly influenced willingness, so no single factor should be treated as sufficient.

8. Limitations and Future Research

## 8. Limitations & Future Research

**Limitation:** The sample comes from one university, so the findings may not represent all higher-education students. Convenience sampling limits generalisation, and the sample is predominantly female, undergraduate, and from Management/Commerce. The data are self-reported perceptions from a single cross-sectional survey, so the study shows association, not causation. Alpha values above 0.90, and 0.960 for feature importance, may indicate overlapping items. The ranking question has the data inconsistency.

**Future research:** Studies could draw samples from several institutions, use probability sampling, and compare perceptions across fields of study and levels of study, which this dataset records but this paper does not analyse. Future work could add AI anxiety, AI literacy, and career adaptability (Duan et al., 2026) as variables, test reasons for the gender difference in prior use, and examine whether stated willingness leads to actual use and better career outcomes over time.

## 9. Conclusion

This study examined how students at JG University perceive AI-based career guidance. Awareness and prior use were considerable, and perceptions of usefulness, trust, and willingness to use were favourable, though in the moderate range (about 3.6 to 3.9 on a five-point scale). Students placed high importance on ethics, fairness, privacy protection, and transparency. Gender was significantly, though modestly, associated with previous use of digital career-guidance services, with female respondents reporting more prior use. Multiple regression showed that usefulness, trust, ethical concerns, and the importance of features together explained 75.8% of the variance in willingness to use, with ethical, fairness and privacy concerns the strongest predictor. Acceptance of AI-based career guidance therefore depends on how it is built and governed, not only on what it can offer. Because the sample is a single-institution convenience sample, the findings should be generalised with caution and tested in wider samples.

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