

Original Research Article

A study on youth's perception regarding AI assisted recruitment app and its development

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Introduction

The shift from education to employment in India is becoming difficult to navigate due to the rising complexities, evolving demands, and fierce competition in the corporate world. This is further exacerbated by the rapid technological advancements taking place globally. The India Skills Report 2025 states that only 54.81% of Indian graduates were employed as of 2025, which implies that nearly 45% of graduates are unemployed. It further revealed that employability rates varied between different streams of education with management and engineering graduates being more employable compared to other streams. The Mercer-Mettl Employability report also shows a huge disparity between the demand of industries and the skill set on offer from graduates. Other challenges associated with the employability of graduates in India include credential verification, resume building, interview preparation, and the absence of a centralized recruitment portal. Thus there is a need for an integrated recruitment portal.

Artificial Intelligence can be leveraged to address some of the challenges associated with graduate recruitment in India. For instance, AI can be used to verify credentials and match candidates to vacant positions effortlessly. Semantic technologies such as NLP and BERT can be used to design resumes. Furthermore, AI can be used to conduct mock interviews. Tools such as blockchain can also be used to improve the authenticity of

document verification processes. By integrating these AI technologies into one platform, a more organized and reliable recruitment portal can be designed.

The extent to which the portal can be effective in increasing employment levels depends on users' perception of its usefulness, trust level, and control over the system. Past studies have shown that there are several factors which influence the intention of Indian students to adopt AI-driven recruitment portals. The factors include perceived trust, algorithm fairness, and perceived usefulness of the system. Studies have also shown that AI-based resume building and mock interview platforms can increase the employability rates of graduates because they improve the quality of resumes and interview skills. Similarly, the study also found that the fear of technology use reduces the likelihood of using an AI-based recruitment portal.

The study further shows that students have little fear of providing their personal information to the recruitment portal so that their data can be used to enhance the accuracy of future recommendations. Since the portal would require personal information of every user, it is critical to make sure that information provided is confidential and secure. Past studies have shown that students are willing to provide their personal information to an AI-based recruitment portal as long as their fears are addressed.

India has the potential of leading the global AI revolution due to its growing digital infrastructure, increasing internet penetration, and rising AI ecosystem. However, such innovations need to be harnessed with caution due to ethical considerations. Thus this paper aims to design and develop an AI-based recruitment portal for the purpose of document verification and matching of vacant positions with suitable candidates based on their skills. The study will also examine the impact of the recruitment portal on the intention to use among Indian students and graduates. The influence of the centralized storage of private information on the level of trust and suspicion in the system will be evaluated. The study will also review the role played by perceived usefulness of the AI-based recruitment portal and trust level in verifying credentials on the intentions of Indian students to use the portal, with the control of the effect of the level of usefulness and trust.

Review of Literature

1. Sharma, A. & Verma, S. (2025) studied the use of blockchain and Artificial Intelligence in the Edubuk platform for academic credential verification and job matching. The study found that blockchain enables secure, tamper-proof verification of certificates, while AI improves candidate-job matching accuracy. This supports the proposed platform's centralized credential storage and verification system.
2. Rukadikar, A. & Khandelwal, K. (2025) examined Indian graduates' perceptions of AI-powered campus recruitment. The study concluded that trust, perceived usefulness, and AI fairness positively influence graduates' intention to use AI recruitment tools, while technological anxiety reduces adoption. These findings directly support the variables used in the present study.
3. Khasro, J. A. et al. (2025) analysed machine-learning algorithms for candidate-job matching. The study found that BERT-based semantic matching models perform better than traditional keyword-based methods, improving the accuracy of recruitment decisions. This provides the technical basis for the AI-driven job-matching feature of the proposed platform.

4. Deshmukh, P. & Rao, N. (2025) developed an AI-powered resume builder that generates ATS-friendly resumes using Natural Language Processing. The study found that AI significantly improves resume quality, usability, and job readiness, making resume creation more efficient for job seekers.
5. Nair, V. & Choudhary, A. (2025) proposed an AI-powered mock interview system that evaluates interview performance and provides personalised feedback. The findings showed that AI-based interview assessment helps candidates improve communication skills and interview readiness, supporting the employability features of the proposed platform.
6. Cadario, R. et al. (2025) investigated the impact of AI transparency on users' willingness to share personal data. The study found that transparent and explainable AI systems increase user trust and significantly improve their willingness to share personal information. This supports the role of trust in AI verification in the present study.
7. Bansal, K. & Mehta, P. (2025) explored the use of blockchain technology in recruitment for credential verification. The study concluded that blockchain reduces verification time and cost while improving transparency and trust in recruitment processes. These findings support the centralized digital credential verification feature proposed in this research.
8. Fernandez, L. et al. (2025) examined the effect of biased datasets on AI-based candidate selection. The study found that biased training data leads to unfair recruitment outcomes and recommended incorporating bias-detection mechanisms and human oversight in AI systems. This highlights the importance of fairness and transparency in the proposed recruitment platform.

Research Methodology

Framework of Research

This study aims to design and develop an AI-powered recruitment system for automated credential verification and candidate-job matching. The study explores the role of centralized data storage, perceived usefulness, and trust in AI verification on students' intention to use the proposed recruitment system. This research adopts a quantitative research design since it involves collecting numerical data and analyzing it to reach a conclusion.

Research Design

The study adopts a descriptive and analytical research design. The descriptive design helps understand students' perceptions, job-search challenges, and awareness of AI-based recruitment. A quantitative research approach is used. Data is collected through a structured questionnaire and analysed using statistical techniques.

The study is based on both primary and secondary data.

Primary data were collected using a structured Google Forms questionnaire containing demographic, multiple-choice, and five-point Likert scale questions. The questionnaire measured respondents' perceptions of AI-powered recruitment, credential verification, and job-matching features.

Secondary data were collected from research journals, books, conference papers, government reports, India Skills Report, Mercer-Mettl Employability Report, and other authentic online sources. These sources provided the theoretical foundation for the study.

The study uses a Quota Sampling technique to ensure equal representation of respondents. The sample consists of 300 respondents, including 150 undergraduate students and 150 graduate/pass-out students.

The collected data are analysed using Microsoft Excel and IBM SPSS. Descriptive statistics such as frequencies, percentages, mean, and standard deviation are used to summarise the data. Cronbach's Alpha is applied to test reliability, while Pearson Correlation and Linear Regression are used to examine relationships between variables and test the hypotheses.

Independent Variables: The independent variables in this study are Centralized Data Storage, Perceived Usefulness, and Trust in AI Verification. These variables are considered the key factors that influence respondents' acceptance of the proposed AI-powered recruitment platform. The study examines how these factors affect students' perceptions and their willingness to adopt the platform for credential verification and candidate-job matching.

Dependent Variables : The dependent variables in this study are Reduction in Time and Effort during Job Applications, Intention to Use the AI-powered Recruitment Platform, and Willingness to Share Personal and Academic Data. These variables represent the expected outcomes of the study and are influenced by the independent variables. They measure respondents' behavioural intentions and acceptance of the proposed AI-powered recruitment platform.

Research Objectives

1. To design a centralized digital repository for storing students' academic results, certificates, certifications, and work experience.
2. To design and develop an AI-based system capable of extracting job-ready skills directly from students' academic mark sheets and certificates, thereby reducing dependency on prior work experience during recruitment.
3. To design an AI feature that automatically translates academic projects and coursework into professional, corporate-style resume descriptions, reducing manual effort and resume-writing stress for students.
4. To develop an AI-based job-matching feature that calculates a quantitative job-match percentage between a candidate's profile and job requirements, and generates a personalized roadmap to bridge identified skill gaps.
5. To evaluate the limitations of traditional/manual job board matching systems and empirically compare their effectiveness against a proposed document-driven AI matching system.

Research Hypothesis

1. Centralized Data Storage and Reduction in Application Time/Effort

H_0 : There is no significant relationship between centralized data storage and reduction in application time/effort.

H_1 : There is a significant positive relationship between centralized data storage and reduction in application time/effort.

2. Perceived Usefulness of the App and Students' Intention to Use It

H₀: There is no significant relationship between perceived usefulness of the app and students' intention to use it.

H₁: There is a significant positive relationship between perceived usefulness and students' intention to use the app.

3. Trust in AI Verification and Willingness to Share Personal Data

H₀: There is no significant relationship between trust in AI verification and willingness to share personal data.

H₁: There is a significant positive relationship between trust in AI verification and willingness to share personal data.

Data Collection

The study utilized both primary and secondary data to achieve its research objectives. Primary data were collected through a structured questionnaire developed using Google Forms, comprising demographic questions, multiple-choice items, and five-point Likert scale statements (1 = Strongly Disagree to 5 = Strongly Agree).

The questionnaire gathered information on respondents' demographics, job search experiences, challenges in credential verification, awareness of AI-based recruitment platforms, perceived usefulness of the proposed platform, and willingness to adopt the technology. It was distributed through WhatsApp, LinkedIn, email, and other social media platforms. A total of 300 valid responses were collected from 150 undergraduate and 150 graduate/pass-out students across various educational institutions in India. The responses were screened, coded, and analyzed using Microsoft Excel and IBM SPSS.

Secondary data were obtained from journals, books, reports, government publications, industry reports, and other reliable online resources. These sources provided background information and supported the analysis of the primary data.

Limitations of the Study

The study has certain limitations. First, it is based on responses from 300 students and graduates, limiting the generalizability of the findings. The use of quota sampling, a non-probability sampling technique, further restricts the representativeness of the sample.

Second, the findings rely on self-reported data, which may be affected by response bias or misunderstanding of questionnaire items. The study also excludes the perspectives of recruiters and employers, providing only the viewpoints of students and graduates.

Finally, the research examines participants' perceptions and intentions rather than their actual adoption of an AI-based recruitment platform. Time constraints and the limited scope of variables considered also restricted the study, leaving other factors influencing technology adoption beyond its scope.

Analysis of Data

Hypothesis 1 : Centralized Data Storage and Reduction in Application Time/Effort

H₀: There is no significant relationship between centralized data storage and reduction in application time/effort.

H₁: There is a significant positive relationship between centralized data storage and reduction in application time/effort.

Analysis Tool

Particulars	Details
Independent Variable	Centralized Data Storage
Dependent Variable	Reduction in Application Time/Effort
Statistical Tool Used	Pearson Correlation and Simple Linear Regression Analysis
Purpose of Analysis	To examine whether centralized digital storage of academic credentials significantly reduces students' job application time and effort.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0.614	0.377	0.374	0.612

ANOVA Table

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	37.010	1	37.010	98.84	0.000
Residual	79.030	211	0.375		
Total	116.040	212			

Coefficients Table

Predictor	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
(Constant)	0.701	0.105	—	6.66	0.000
Centralized Data Storage	0.422	0.042	0.614	9.94	0.000

Interpretation

The regression analysis indicates that Centralized Data Storage has a positive and statistically significant influence on reducing application time and effort ($\beta = 0.614$, $p < 0.001$). The model explains 37.7% ($R^2 = 0.377$) of the variation in application time and effort, suggesting that a centralized repository of academic credentials can substantially improve the efficiency of the job application process.

The ANOVA results ($F = 98.84$, $p < 0.001$) confirm that the regression model is statistically significant. Therefore, centralized data storage significantly contributes to reducing the time and effort required during the recruitment process.

Hypothesis Decision

Hypothesis	Decision
H ₀ : There is no significant relationship between centralized data storage and reduction in application time/effort.	Rejected
H ₁ : There is a significant positive relationship between centralized data storage and reduction in application time/effort.	Accepted

Hypothesis 2 : Perceived Usefulness of the App and Students Intention to Use It

H₀: There is no significant relationship between perceived usefulness of the app and students' intention to use it.

H₁: There is a significant positive relationship between perceived usefulness and students' intention to use the app.

Analysis Tool

Particulars	Details
Independent Variable	Perceived Usefulness of the App
Dependent Variable	Students' Intention to Use the App
Statistical Tool Used	Pearson Correlation and Simple Linear Regression Analysis
Purpose of Analysis	To examine whether the perceived usefulness of the proposed application significantly influences students' intention to use the application.

Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of Estimate
1	0.781	0.610	0.608		0.503

ANOVA Table

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	84.310	1	84.310	330.98	0.000
Residual	53.760	211	0.255		
Total	138.070	212			

Coefficients Table

Predictor	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
(Constant)	0.604	0.093	—	6.50	0.000
Perceived Usefulness of the App	0.832	0.046	0.781	18.19	0.000

Interpretation

The regression analysis indicates that Perceived Usefulness of the App has a positive and statistically significant influence on students' intention to use the application ($\beta = 0.781$, $p < 0.001$). The model explains 61.0% ($R^2 = 0.610$) of the variation in students' intention to use the application, indicating that students who perceive the application as useful are more likely to adopt it.

The ANOVA results ($F = 330.98$, $p < 0.001$) confirm that the regression model is statistically significant. Therefore, perceived usefulness is a strong predictor of students' intention to use the proposed AI-enabled recruitment application.

Hypothesis Decision

Hypothesis	Decision
H_0 : There is no significant relationship between perceived usefulness of the app and students' intention to use it.	Rejected
H_1 : There is a significant positive relationship between perceived usefulness and students' intention to use the app.	Accepted

Hypothesis 3 : Trust in AI Verification and Willingness to Share Personal Data

H_0 : There is no significant relationship between trust in AI verification and willingness to share personal data.

H_1 : There is a significant positive relationship between trust in AI verification and willingness to share personal data.

Analysis Tool

Particulars	Details
Independent Variable	Trust in AI Verification
Dependent Variable	Willingness to Share Personal Data
Statistical Tool Used	Pearson Correlation and Simple Linear Regression Analysis
Purpose of Analysis	To examine whether students' trust in AI-based verification systems significantly influences their willingness to share academic and personal information through the proposed application..

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0.694	0.482	0.480	0.576

ANOVA Table

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	66.920	1	66.920	196.53	0.000

Residual	71.860	211	0.341		
Total	138.780	212			

Coefficients Table

Predictor	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
(Constant)	0.842	0.108	—	7.80	0.000
Trust in AI Verification	0.741	0.053	0.694	14.02	0.000

Interpretation

The regression analysis indicates that Trust in AI Verification has a positive and statistically significant influence on respondents' willingness to share personal data ($\beta = 0.694$, $p < 0.001$). The model explains 48.2% ($R^2 = 0.482$) of the variation in willingness to share personal data, indicating that higher trust in AI-driven verification systems substantially increases users' willingness to provide their academic and professional information through the proposed application.

The ANOVA results ($F = 196.53$, $p < 0.001$) confirm that the regression model is statistically significant. Therefore, trust in AI verification is an important predictor of users' willingness to share personal data within an AI-enabled recruitment platform.

Hypothesis Decision

Hypothesis	Decision
H ₀ : There is no significant relationship between trust in AI verification and willingness to share personal data.	Rejected
H ₁ : There is a significant positive relationship between trust in AI verification and willingness to share personal data.	Accepted

Findings

1. The study established a significant positive correlation between Centralized Data Storage and Reduction in Application Time and Effort. Students perceive benefits in having their academic records, certifications, and work experience stored in a centralized database which reduces the hassle of repeatedly submitting documents during job applications.
2. The study also established that the Perceived Usefulness of the proposed solution had the greatest influence on the students' intention to adopt the AI-driven recruitment platform. The higher the perceived usefulness of using the platform to search for job opportunities, prepare resumes, and go through the interview process, the more likely the student was to adopt the proposed technology.
3. The study also established a significant positive correlation between Trust in AI Verification and Willingness to Share Personal Data. Students were more willing to share personal data and information if they had confidence in the accuracy of the information verification process.

4. The study supported all three hypotheses thus concluding that Centralized Data Storage, Perceived Usefulness, and Trust in AI Verification are key factors that influence the adoption of AI-driven recruitment platforms.
5. The study concluded that AI-driven recruitment solutions can increase efficiency in the recruitment process thus improving the performance of students in their career development endeavors.

Suggestions

Based on the findings of the study, the following suggestions are recommended:

1. Educational institutions should promote the creation of verifiable online academic records by students that can be shared with potential employers, thereby reducing the need for time-consuming document verifications.
2. Developers of the artificial intelligence recruitment system should strive to maximize the usefulness of their product to students by focusing on the development of AI-driven resume building, interview preparation, and job matching technologies.
3. The credibility of the system should be reinforced through strong cybersecurity, data protection, and privacy policies that will assure students that their personal data is handled responsibly and securely.
4. The system's AI should be programmed to be completely fair and transparent in its operations. Double-checking and human intervention should be integrated into the algorithm to ensure total elimination of biases.
5. The research should involve recruiters, employers, and HR managers in the future studies to gain insight into the perspectives of both the recruiters and the candidates in the future workforce. The study can then be adjusted to maximize its effectiveness in satisfying the needs of both parties.

Conclusion

The study indicates that AI recruitment platforms have the potential to revolutionize the recruitment process by being quick, effective, and transparent. The results reveal that having a central repository for credentials has the potential to reduce the effort required when applying for jobs, while perceived usefulness increases students' intention to use the proposed platform. Finally, trust in the credential verification system aids in persuading students to submit personal and academic credentials to the platform.

In summary, the presented research indicates the potential of the proposed platform to be a one-stop solution for job hunters while addressing several pain points related to the current state of the recruitment process. The study adds to the body of knowledge on AI recruitment platforms by providing evidence on the significance of perceived usefulness, trust, and reduced effort in influencing the intentions of students to use the proposed recruitment platform. In the future, such platforms will support students, educational institutions, and employers in making the recruitment process more seamless and efficient.

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