



Artificial Intelligence and its Influence on Talent Acquisition Practices at Virtusa : An Empirical Study

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Abstract

The integration of Artificial Intelligence (AI) in Human Resource Management has significantly transformed modern talent acquisition practices, particularly in the Information Technology (IT) sector. This study examines the influence of AI on recruitment processes at Virtusa Corporation from the perspective of recruiters. AI-powered tools such as automated resume screening, chatbots, predictive analytics, and video interview platforms are increasingly used to enhance efficiency, accuracy, and candidate experience.

The study adopts a descriptive research design and is based on primary data collected from 100 recruiters through structured questionnaires. The findings reveal that AI significantly improves recruitment speed, reduces manual effort, and enhances decision-making. However, challenges such as algorithmic bias, lack of human interaction, and ethical concerns remain critical. The research highlights the importance of balancing AI capabilities with human judgment to achieve effective and fair hiring outcomes.

Key words: Artificial Intelligence, Talent Acquisition, Recruitment, HRM, AI Tools, Efficiency



1. Introduction

In today's competitive business environment, organizations are increasingly adopting advanced technologies to improve operational efficiency and strategic decision-making. Artificial Intelligence (AI) has emerged as a transformative force, enabling systems to perform tasks such as learning, reasoning, and decision-making. In Human Resource Management (HRM), AI is reshaping traditional practices, particularly in talent acquisition.

Talent acquisition has evolved from a routine hiring process to a strategic function focused on attracting and retaining high-quality talent. With the growing volume of job applications and demand for faster hiring, organizations are leveraging AI tools to automate recruitment processes and enhance accuracy.

Virtusa Corporation, a global IT services company, utilizes AI-based tools such as Phenom (CRM), VeriKlick chatbot, video interviews, Tydy, and Taleo to streamline recruitment. These tools enable efficient candidate management, faster communication, and improved hiring decisions.

2. Industry Profile

The Information Technology (IT) industry is one of the fastest-growing and most influential sectors globally, playing a vital role in digital transformation across industries. It includes services such as software development, cloud computing, cybersecurity, artificial intelligence, and data analytics. Over the years, the industry has evolved from a support function to a strategic driver of business innovation, enabling organizations to improve efficiency, reduce costs, and enhance customer experience. The rapid adoption of digital technologies, especially after the COVID-19 pandemic, has further accelerated the growth of the IT sector worldwide.

In India, the IT industry has become a major contributor to economic development, exports, and employment generation. Cities like Bengaluru, Hyderabad, Pune, and Chennai have emerged as major IT hubs, attracting global investments and talent. The industry continues to expand with advancements in emerging technologies such as AI, machine learning, and cloud computing. Despite challenges like cybersecurity threats and skill gaps, the IT sector offers significant growth opportunities, making it a key pillar of the global economy.

3. Company Profile – Virtusa Corporation

Virtusa Corporation is a leading global provider of digital engineering, IT consulting, and business process management services. Founded in 1996 and headquartered in Massachusetts, USA, the company operates in more than 25 countries with a strong workforce of around 35,000 professionals. Virtusa serves various industries including banking, financial services, healthcare, telecommunications, and media, offering solutions that support digital transformation and business innovation. The company has grown significantly through strategic acquisitions and a strong focus on agile methodologies and advanced technologies.

Virtusa specializes in areas such as cloud computing, artificial intelligence, data analytics, and IT modernization, helping organizations improve operational efficiency and customer experience. It has established a strong market presence by delivering high-quality solutions and maintaining long-term client relationships. The company also emphasizes innovation, sustainability, and corporate social responsibility. With continuous investment in emerging technologies and global expansion, Virtusa aims to remain a key player in the competitive IT services industry.

4. Literature Review

Patel et al. (2026) studied AI-driven recruitment systems and their impact on hiring efficiency. Their research explains how AI technologies support HR professionals in evaluating candidate suitability. The authors reviewed the use of predictive analytics in recruitment decision-making. The findings show that AI helps organizations reduce recruitment costs and improve hiring outcomes. The study concludes that AI integration enhances overall recruitment performance.

Stephany et al. (2026) examined the impact of artificial intelligence skills on employment opportunities. Their study



explains how organizations value AI-related competencies during recruitment processes. The authors analyzed hiring experiments to understand the relationship between AI skills and job prospects. The study reveals that candidates with AI expertise have higher chances of being selected. The findings highlight the increasing demand for AI knowledge in modern workplaces.

5. Research methodology

This study adopts a **descriptive research design** to analyze the impact of artificial intelligence in recruitment. The research is empirical, based on primary data collected from recruiters through structured questionnaires.

Data was collected from both **primary and secondary sources**. Primary data was gathered from 100 recruiters using a questionnaire, while secondary data was obtained from journals, books, and online sources to support the study.

A **convenience sampling technique** was used to select respondents involved in talent acquisition. The questionnaire covered aspects such as awareness, usage, benefits, and challenges of AI in recruitment, with most questions based on a Likert scale.

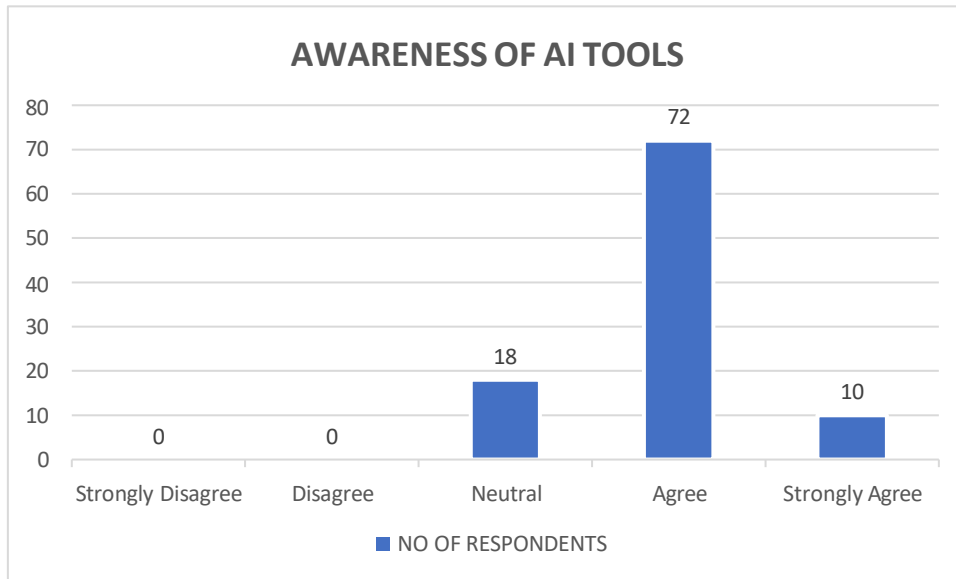
The data was analyzed using **percentage analysis**, mean score analysis, and Chi-square test, along with tables and charts for better interpretation of results.

6. Data analysis and interpretation

SHOWS AWARENESS OF AI TOOLS IN RECRUITMENT.

S.NO	RESPONSE	NO OF RESPONDENTS	PERCENTAGE
1	Strongly Disagree	0	0%
2	Disagree	0	0%
3	Neutral	18	18%
4	Agree	72	72%
5	Strongly Agree	10	10%

GRAPH :



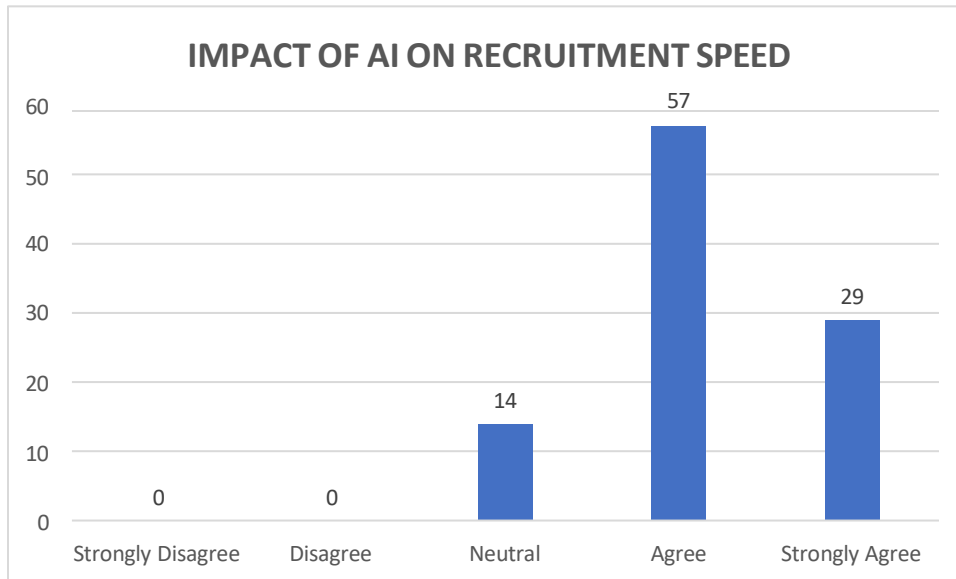
INTERPRETATION:

From the above table, it is observed that a majority of respondents (72%) agree that they are aware of Artificial Intelligence tools used in recruitment, indicating a high level of awareness among recruiters. Additionally, 10% of respondents strongly agree with the statement, further reinforcing this trend. About 18% of respondents remain neutral, suggesting moderate awareness or uncertainty. There are no respondents who disagree or strongly disagree, which clearly shows that awareness of AI tools in recruitment is widespread among the participants.

SHOWS IMPACT OF AI ON RECRUITMENT SPEED:

S.NO	RESPONSE	NO OF RESPONDENTS	PERCENTAGE
1	Strongly Disagree	0	0%
2	Disagree	0	0%
3	Neutral	14	14%
4	Agree	57	57%
5	Strongly Agree	29	29%

Graph:



INTERPRETATION:

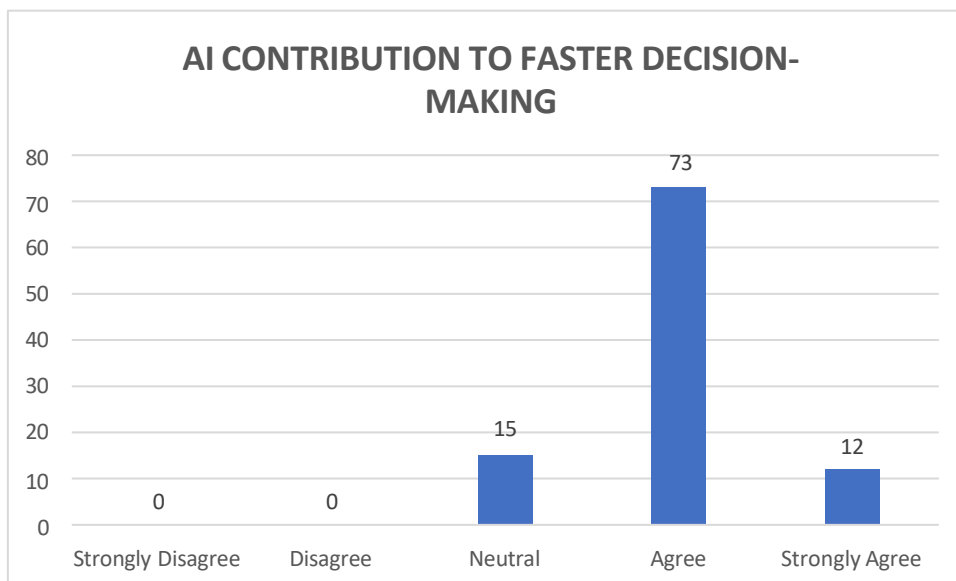
From the above table, it is observed that a significant proportion of respondents (57%) agree that AI improves the speed of the recruitment process. Additionally, a higher percentage (29%) strongly agree with the statement, indicating a strong positive perception towards the effectiveness of AI in accelerating hiring activities. A smaller proportion (14%) of respondents remain neutral, suggesting moderate experience or awareness. Overall, the findings clearly indicate that AI plays a major role in enhancing the speed of recruitment processes



SHOWS AI CONTRIBUTION TO FASTER DECISION-MAKING: TABLE

S.NO	RESPONSE	NO OF RESPONDENTS	PERCENTAGE
1	Strongly Disagree	0	0%
2	Disagree	0	0%
3	Neutral	15	15%
4	Agree	73	73%
5	Strongly Agree	12	12%

GRAPH



INTERPRETATION:

From the above table, it is observed that a majority of respondents (73%) agree that AI contributes to faster decision-making in hiring, indicating a strong positive perception towards its effectiveness. Additionally, 12% of respondents strongly agree with the statement, further supporting this view. Around 15% of respondents remain neutral, suggesting moderate experience or uncertainty. Overall, the findings clearly indicate that AI plays a significant role in accelerating decision-making processes in recruitment.

7. Findings

- The sample is dominated by male respondents (68%), with the majority belonging to mid-level professionals aged 26–35.
- Most respondents possess undergraduate qualifications and have 3–5 years of recruitment experience, indicating a moderately experienced group.
- A large majority of recruiters are aware of Artificial Intelligence tools used in recruitment.
- AI is widely used for candidate sourcing, resume screening, and shortlisting processes.
- Respondents show a positive perception that AI improves recruitment speed and reduces manual effort.



- AI is perceived to enhance efficiency and support faster decision-making in hiring processes.
- There is a mixed perception regarding AI's impact on candidate matching accuracy and selection quality.
- Respondents believe AI enhances candidate experience, though some uncertainty remains.
- Data privacy, security concerns, and system complexity are identified as key challenges in AI adoption.

8. Suggestions

- Organizations should provide training and awareness programs to improve understanding and effective usage of AI tools in recruitment.
- Companies must focus on enhancing AI system transparency, reliability, and explainability to build trust and reduce uncertainty.
- It is recommended to strengthen data privacy measures and integrate AI with human judgment for better recruitment outcomes.

9. Conclusion

The study indicates that Artificial Intelligence has become an important component of modern recruitment, with most respondents aware of and using AI tools in processes such as candidate sourcing, screening, and shortlisting. AI is widely perceived to improve recruitment speed, reduce manual effort, and enhance overall efficiency and decision-making. However, moderate perceptions regarding candidate matching accuracy and bias reduction suggest that its full potential is yet to be fully realized. While respondents generally show a positive attitude and comfort in using AI, concerns related to technical knowledge, data privacy, security, and system complexity highlight the need for proper training and stronger system reliability. Overall, AI significantly enhances recruitment practices, but its effectiveness can be further improved through better awareness, training, and secure implementation.

10. References

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