

The Shift from Credential-Based to Skills-Based Hiring: Examining the Impact of Artificial Intelligence on Talent Acquisition and Workforce Development

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Abstract

The rapid advancement of Artificial Intelligence (AI) is fundamentally transforming recruitment practices, prompting organizations to shift from traditional credential-based hiring toward skills-based talent acquisition. This paper examines how AI-driven recruitment technologies—including applicant tracking systems, résumé parsing, predictive analytics, and competency-based matching algorithms—are reshaping employer perceptions of university degrees and employability. Drawing upon Human Capital Theory, Signaling Theory, and Credentialism, the study synthesizes contemporary literature to evaluate whether formal educational qualifications are losing their significance or evolving alongside emerging workforce requirements. The review highlights the key drivers of skills-based hiring, including technological disruption, persistent talent shortages, and the growing demand for adaptable, digitally competent professionals. It further explores the benefits and limitations of AI-assisted recruitment, particularly regarding efficiency, diversity, transparency, and algorithmic bias. The findings indicate that university degrees remain valuable for providing foundational knowledge, professional credibility, and discipline-specific expertise; however, they are increasingly complemented by practical skills, professional certifications, work experience, and continuous learning. Rather than replacing higher education, AI is encouraging a more holistic approach to talent evaluation in which academic credentials represent one component of employability. The paper concludes that the future of recruitment is likely to be characterized by hybrid hiring models that integrate educational qualifications with demonstrable competencies, offering important implications for students, higher education institutions, employers, and policymakers seeking to prepare the workforce for an AI-driven economy.

Keywords: Artificial Intelligence, skills-based hiring, credential-based hiring, university degrees, employability, talent acquisition, higher education, recruitment, workforce development, competency-based hiring

Chapter 1: Introduction

1.1 Background of the Study

Higher education has long been seen as the main route to finding a job. University degrees are often viewed as proof of knowledge, skills, and professional competence. According to Human Capital Theory, education increases a person's productivity by building knowledge and skills needed in the workplace (Becker, 1964). On the other hand, Signaling Theory suggests that degrees mainly signal traits like intelligence, perseverance, and learning ability to employers, even if they don't accurately reflect job

performance (Spence, 1973). Similarly, Credentialism indicates that employers tend to use degrees as simple screening tools rather than as perfect measures of capability (Collins, 1979; Bills, 2003). Although these theories differ in how they view the purpose of higher education, they all highlight why university degrees have been the main hiring standard for years.

However, fast technological advancements and the rise of Artificial Intelligence (AI) have changed what the job market needs. Bone, Ehlinger, and Stephany (2024) argue that AI-focused industries now place more importance on specific technical skills rather than formal educational credentials. At the same time, Fuller, Langer, and Sigelman (2022) point out that hiring based on skills is largely driven by talent shortages and the need to include people beyond those with traditional degrees. Likewise, reports from the World Economic Forum (2025) and LinkedIn (2024) show that employers now value adaptability, problem-solving, digital skills, and continuous learning more than before. Together, these studies suggest that changes in technology, not a decline in the quality of higher education, are reshaping how companies hire.

Artificial Intelligence has sped up this change by making recruitment more efficient. It uses résumé parsing, Applicant Tracking Systems (ATS), predictive analytics, and skill-matching algorithms. Instead of focusing solely on educational credentials, AI allows employers to better evaluate practical skills, certifications, work experience, and transferable capabilities. As a result, many organizations are moving toward skills-based hiring, where university degrees still matter but are considered alongside real abilities and job experience.

This shift in recruitment raises an important question: Are university degrees losing their importance, or are employers just assessing talent differently? This study will explore this question by looking at the link between AI, skills-based hiring, and how higher education's role is changing in today's hiring practices.

1.2 Statement of the Problem

The growing use of Artificial Intelligence has changed recruitment by allowing employers to assess candidates more effectively through skills-based evaluations and data-driven choices. Meanwhile, many companies report ongoing skills shortages despite more university graduates, which suggests a gap between what higher education provides and what the job market needs.

While many studies focus on AI in hiring and others look at skills-based recruitment, these topics are often treated separately. There is limited research that combines AI, credentialism, and skills-based hiring to show how they together affect the value of university degrees. Furthermore, most existing literature tends to focus on employer views in developed countries, with less emphasis on the impacts for students, universities, and developing nations like India. Filling these gaps is crucial for understanding how higher education should respond to a world increasingly driven by AI.

1.3 Research Objectives

The primary goal of this study is to investigate how Artificial Intelligence is affecting the shift from recruitment based on credentials to one focused on skills, as well as its impact on the value of university degrees.

The specific goals are:

- To look at the traditional role of university degrees in hiring.
- To explore what is fueling the rise of skills-based hiring.
- To evaluate the impact of Artificial Intelligence on modern hiring practices.
- To understand the advantages and challenges of skills-based hiring.
- To consider the effects of these changes on students, employers, and educational institutions.

1.4 Research Questions

This study aims to answer these questions:

1. Why have university degrees been important in hiring?
2. What factors are pushing the shift toward skills-based hiring?
3. How is Artificial Intelligence changing recruitment practices?
4. What are the benefits and challenges of skills-based hiring?
5. Are university degrees losing value, or are they adapting to a changing job market?

1.5 Scope of the Study

This research explores the connection between Artificial Intelligence, skills-based hiring, and the changing significance of university degrees in recruitment. It reviews existing literature on AI recruitment technologies, hiring practices, and global workforce trends, citing examples from the United States, the United Kingdom, India, and Australia. The study mainly focuses on industries undergoing rapid technological shifts while recognizing that fields like medicine, law, and engineering still require formal academic degrees and professional licenses.

1.6 Significance of the Study

This study adds to the ongoing conversation about the future of employability by exploring how Artificial Intelligence and skills-based hiring are changing recruitment. It offers insights for students wanting to enhance their job readiness, universities aiming to align their programs with job market needs, employers using AI-driven hiring, and policymakers creating workforce strategies. By combining educational theories with recent advancements in AI and hiring practices, the study shows that employability increasingly relies on finding a balance between academic credentials and practical skills, professional experience, and ongoing learning.

Chapter 2: Literature Review

2.1 Historical Importance of Degrees

For many years, university degrees have been viewed as one of the strongest indicators of employability. Becker (1964) argues that higher education improves an individual's productivity by building knowledge and skills. However, Bills (2003) points out that employers often use degrees as a convenient screening tool instead of a direct measure of a candidate's abilities. Walters (2004) similarly found that although educational qualifications influence hiring decisions, their importance differs across industries. More recently, Tholen (2023) argues that degrees continue to signal both academic knowledge and workplace readiness. Taken together, these studies show that degrees have traditionally served not only as evidence of learning but also as an important hiring criterion.

2.2 Understanding Skills-Based Hiring

Skills-based hiring places greater emphasis on what candidates can do rather than on the qualifications they hold. Fuller et al. (2022) argue that this approach allows employers to access a wider talent pool by recognising capable individuals without traditional degrees. In comparison, Bone et al. (2024) suggest that the shift is most noticeable in AI-driven industries, where technical skills evolve quickly and employers prioritise practical expertise. Research from the Rutgers Education and Employment Research Center (2024) also found that competency-based hiring can improve workforce diversity and make recruitment more efficient. Overall, the literature indicates that skills-based hiring is becoming an important complement to higher education rather than a replacement for it.

2.3 Theoretical Framework

This study is based on three key theories: Human Capital Theory, Signaling Theory, and Credentialism. Human Capital Theory views education as an investment that enhances productivity and develops valuable skills (Becker, 1964). Signaling Theory explains that degrees communicate qualities such as intelligence, commitment, and perseverance to employers (Spence, 1973). Credentialism, on the other hand, argues that educational qualifications often act as hiring filters rather than accurate measures of ability (Collins, 1979). Together, these theories help explain why employers increasingly value both formal education and practical skills during recruitment.

2.4 Artificial Intelligence in Recruitment

Artificial Intelligence has significantly changed recruitment by introducing technologies such as résumé parsing, Applicant Tracking Systems (ATS), predictive hiring analytics, chatbots, and skill-matching algorithms. According to LinkedIn (2024), AI helps improve candidate matching by analysing large amounts of hiring data. Companies such as IBM use predictive analytics to identify suitable candidates more efficiently, while Deloitte (2024) emphasises that the best hiring outcomes are achieved when AI supports, rather than replaces, human decision-making. Unilever's recruitment process demonstrates this balance in practice. These developments show that AI is making recruitment faster, more efficient, and increasingly focused on candidates' skills.

2.5 Global Trends Toward Skills-Based Hiring

The adoption of skills-based hiring has grown across many countries in recent years. In the United States, many employers have reduced unnecessary degree requirements to address talent shortages (Fuller et al., 2022). The United Kingdom has expanded apprenticeship programmes to promote practical learning, while India has seen rising demand for industry certifications and digital skills. Australia has also strengthened competency-based training through partnerships between educational institutions and industry. Although each country has taken a different approach, the overall trend shows a growing recognition of practical experience and alternative credentials alongside university degrees.

2.6 Employer Perspectives

Recent studies suggest that employers now place greater value on a combination of technical and interpersonal skills. The World Economic Forum (2025) identifies analytical thinking, adaptability, and technological literacy as some of the most important skills for the future workforce. LinkedIn (2024) highlights communication and collaboration, while McKinsey (2023) and Deloitte (2024) stress the importance of continuous learning, leadership, and problem-solving. Together, these findings indicate that employers are assessing candidates using a much broader range of competencies than they did in the past.

2.7 Criticisms and Challenges

Despite its advantages, skills-based hiring also presents several challenges. Bone et al. (2024) argue that technical skills are generally easier to assess than qualities such as leadership, creativity, or teamwork. Deloitte (2024) also warns that AI-driven recruitment systems may reinforce existing biases if they rely heavily on historical hiring data. In addition, the Rutgers Education and Employment Research Center (2024) highlights concerns about inconsistent certification standards, which can make it difficult for employers to evaluate alternative credentials fairly. These issues suggest that AI-assisted recruitment should be supported by transparent evaluation methods and appropriate human oversight.

2.8 Research Gap

Although there is considerable research on AI in recruitment and the rise of skills-based hiring, relatively few studies examine how these developments together are reshaping the value of university degrees. Much

of the existing literature focuses on employers in developed countries, with comparatively little attention given to students, higher education institutions, and developing economies such as India. This study seeks to address these gaps by exploring how AI, skills-based hiring, and higher education collectively influence employability in today's job market.

Chapter 3: The Rise of Skills-Based Hiring in the Age of Artificial Intelligence

3.1 Drivers of the Shift

The rise of skills-based hiring has been influenced by rapid technological advancements, growing skills shortages, labour market challenges, and the increasing use of Artificial Intelligence (AI). According to Bone et al. (2024), AI-intensive industries require specialised skills that change much faster than traditional university programmes can adapt. The World Economic Forum (2025) also highlights how technological disruption is increasing demand for digital, analytical, and problem-solving skills. Likewise, McKinsey (2023) points to a widening gap between the skills employers need and those many graduates possess. As a result, organisations are placing greater importance on practical abilities that can be applied directly in the workplace.

3.2 Why Employers Are Reconsidering Degree Requirements

Many employers are beginning to question whether a university degree alone is the best indicator of workplace performance. Fuller et al. (2022) found that removing unnecessary degree requirements allows organisations to access a broader and more diverse talent pool. Bone et al. (2024) also note that employers increasingly value skills gained through work experience, vocational education, and online learning. The growing popularity of platforms such as Coursera, LinkedIn Learning, and industry certifications offered by Google and Microsoft has made job-relevant training more accessible than ever. Rather than replacing degrees, these developments have encouraged employers to consider multiple ways of evaluating candidates.

3.3 Alternative Credentials

Alternative credentials are becoming an increasingly important part of recruitment. Certifications from providers such as Coursera, Google Career Certificates, Microsoft, and LinkedIn Learning offer focused training in areas including data analytics, cybersecurity, project management, and cloud computing. Fuller et al. (2022) suggest that these programmes help employers address skill shortages, particularly in technical fields. Bone et al. (2024) adds that they are especially valuable in industries where required skills evolve rapidly. Even so, most employers continue to treat these credentials as a complement to a university degree rather than a complete substitute.

3.4 AI-Powered Talent Identification

Artificial Intelligence has changed the way organisations identify and evaluate potential employees. Modern recruitment systems can analyse résumés, work experience, certifications, portfolios, and technical skills to identify candidates who best fit a role. Deloitte (2024) explains that AI supports faster and more data-driven hiring decisions, while LinkedIn (2024) highlights its ability to improve candidate matching based on skills. At the same time, both sources stress that AI should assist human recruiters instead of replacing them, particularly because concerns about bias, transparency, and privacy remain. Overall, AI is making recruitment more efficient while encouraging employers to focus more on demonstrated skills than credentials alone.

Chapter 4: Benefits and Challenges of Skills-Based Hiring

4.1 Benefits of Skills-Based Hiring

Skills-based hiring offers several advantages for employers as well as job seekers. Fuller et al. (2022) found that reducing unnecessary degree requirements expands the available talent pool by opening opportunities to candidates from a wider range of educational and professional backgrounds. Research by the Rutgers Education and Employment Research Center (2024) also shows that competency-based recruitment can improve workforce diversity and lead to better job matching. In addition, Deloitte (2024) reports that AI-assisted recruitment speeds up candidate screening and improves hiring efficiency. Overall, the evidence suggests that this approach helps organisations recruit more effectively while creating fairer opportunities for skilled candidates.

4.2 Challenges of Skills-Based Hiring

Despite its advantages, skills-based hiring is not without challenges. Bone et al. (2024) point out that technical abilities are generally easier to assess than qualities such as leadership, creativity, or critical thinking. Deloitte (2024) also warns that AI-based recruitment systems can reinforce existing biases if they are trained using historical hiring data. Another concern, highlighted by the Rutgers Education and Employment Research Center (2024), is the lack of consistency in certification standards and competency assessments. These challenges suggest that AI should be used as a support tool alongside transparent recruitment practices and informed human judgement.

4.3 The Continuing Value of University Degrees

Although skills-based hiring is becoming increasingly common, university degrees continue to hold significant value in the labour market. Becker (1964) argues that higher education develops knowledge and improves productivity, while Tholen (2023) suggests that degrees also signal credibility and professional readiness. Bills (2003), however, notes that employers are gradually treating degrees as one indicator of potential rather than the only measure of competence. This is especially true in regulated professions such as medicine, law, engineering, and education, where formal qualifications remain essential. Overall, the literature indicates that the role of university degrees is evolving, with employers increasingly considering academic qualifications alongside practical skills, work experience, and professional certifications.

Chapter 5: Discussion and Analysis

5.1 Are University Degrees Losing Value or Changing Value?

The findings of this study suggest that university degrees are **not losing their value but are** changing in their role within recruitment. Becker (1964) argues that higher education develops knowledge and productivity, while Tholen (2023) emphasises its role in building professional credibility and critical thinking. However, Fuller et al. (2022) and Bone et al. (2024) show that employers increasingly evaluate candidates based on practical skills alongside formal education. This indicates that degrees alone are no longer sufficient in many industries, but they remain an important foundation for career development. Therefore, employability today depends on combining academic qualifications with practical competencies and continuous learning.

5.2 The Emergence of Hybrid Hiring Models

The literature indicates that organizations are moving towards a **hybrid hiring model**, where recruitment decisions are based on multiple factors rather than a single qualification. Employers increasingly assess candidates using a combination of university degrees, technical skills, professional experience,

certifications, portfolios, and behavioural competencies. AI has strengthened this approach by analysing large amounts of applicant data and identifying candidates whose overall profiles best match job requirements. Rather than replacing human decision-making, AI supports recruiters in making more informed and balanced hiring decisions.

5.3 Implications for Students

The changing recruitment landscape has important implications for students. A university degree continues to provide essential theoretical knowledge and professional credibility, but students should also develop practical skills through internships, projects, certifications, and extracurricular activities. Continuous learning has become increasingly important because technological advancements rapidly change workplace requirements. Students who combine academic achievement with real-world experience are likely to be more competitive in the future job market.

5.4 Implications for Universities

Universities must adapt to changing employer expectations by integrating practical learning with academic education. Strengthening industry partnerships, expanding internship opportunities, promoting research, and incorporating AI and digital literacy into curricula can help bridge the gap between education and employment. Rather than reducing the importance of higher education, these changes can improve the relevance of university programmes while preparing graduates for an evolving labour market.

Conceptual Framework

The relationship examined in this study can be represented as follows:



Figure 1. Conceptual Framework of the Study

The framework illustrates that Artificial Intelligence transforms recruitment practices by enabling competency-based candidate evaluation. This encourages the adoption of skills-based hiring, which changes the role of university degrees from being the primary hiring criterion to one component of a broader assessment that also includes skills, experience, and certifications. These developments ultimately influence employability in the modern labour market.

Chapter 6: Conclusion and Recommendations

6.1 Summary of Findings

This study explored how Artificial Intelligence (AI) is reshaping recruitment and contributing to the rise of skills-based hiring. The literature shows that employers are placing greater emphasis on practical skills, work experience, and adaptability alongside formal educational qualifications. AI has supported this shift by making candidate screening and competency-based assessments more efficient. At the same time, the evidence suggests that university degrees continue to play an important role by providing foundational knowledge, professional credibility, and long-term career value.

6.2 Conclusion

The findings indicate that university degrees are not losing their relevance but are adapting to the changing demands of the labour market. Employers are increasingly looking for candidates who combine academic qualifications with practical skills and real-world experience. While AI is transforming recruitment by enabling more efficient and data-driven hiring, it does not replace the need for higher education. Instead, employability is likely to depend on a combination of education, technical and interpersonal skills, work experience, and a commitment to lifelong learning.

6.3 Recommendations

For Students

- Complement academic qualifications with internships, practical projects, and recognised professional certifications.
- Continue developing new skills through lifelong learning to remain competitive in an evolving job market.

For Universities

- Work more closely with industry to keep curricula aligned with current workforce needs.
- Increase opportunities for internships, experiential learning, and AI-related training.

For Employers

- Use recruitment practices that assess both academic qualifications and demonstrated skills.
- Ensure AI-based hiring systems are transparent, fair, and supported by appropriate human oversight.

For Future Research

Future studies could explore the long-term effects of AI-driven recruitment on career progression, educational inequality, and workforce diversity. Research comparing different industries and developing economies would also provide a better understanding of how skills-based hiring is influencing higher education and employment practices.

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