## The Impact of Video Interviewing Platforms in Reducing Time-to-Hire and Cost-per-Hire

Neha Panwar
Research Scholar
Teerthanker Mahaveer Institute of Management and Technology
Teerthanker Mahaveer University
Moradabad, Uttar Pradesh

Satyendra Arya
Associate Professor
Teerthanker Mahaveer Institute of Management and Technology
Teerthanker Mahaveer University
Moradabad, Uttar Pradesh

### **Abstract**

The recruitment landscape has been significantly reshaped by digital technologies, particularly video interviewing platforms. These tools have gained momentum due to their potential to streamline hiring processes, reduce costs, and accelerate candidate selection. This paper examines the impact of video interviewing platforms on two key recruitment metrics: time-to-hire and cost-per-hire. Drawing on current literature and empirical studies, it explores how organizations integrate these platforms into their talent acquisition strategies, the associated benefits and limitations, and recommendations for optimal implementation. The study finds that video interviewing substantially improves hiring efficiency and cost-effectiveness, especially when combined with data-driven decision-making and applicant tracking systems (ATS).

## **Keywords**

Video Interviewing, Time-to-Hire, Cost-per-Hire, Recruitment Technology, Human Resources, Talent Acquisition, Hiring Efficiency

### 1. Introduction

Recruitment is one of the most resource-intensive human resource (HR) functions, with companies often struggling to balance speed and quality in hiring. Two of the most tracked recruitment KPIs are **time-to-hire** and **cost-per-hire**, both of which have a direct impact on organizational productivity and financial planning (Cascio & Boudreau, 2016). The adoption of **video interviewing platforms**—particularly since the COVID-19 pandemic—has introduced a new dimension to modern recruitment. These platforms offer asynchronous and live video tools to conduct interviews, aiming to accelerate the hiring process and reduce associated costs. This paper investigates the effectiveness of video interviewing platforms in reducing time-to-hire and cost-per-hire, drawing from empirical studies and real-world applications.

## 2. Objectives

- To analyze the impact of video interviewing platforms on time-to-hire.
- To evaluate how these platforms affect cost-per-hire.
- To identify challenges and best practices in implementing video interview solutions.

### 3. Literature Review

**Time-to-hire** is the number of days between a candidate applying for a job and accepting an offer, while **cost-per-hire** includes all recruitment-related expenses divided by the number of hires within a given period (Society for Human Resource Management [SHRM], 2021). Both metrics are central to evaluating recruitment efficiency.

Video interviewing tools such as HireVue, Spark Hire, and Zoom have revolutionized hiring, especially during the pandemic when face-to-face interviews were restricted (Maurer, 2020). These platforms allow for one-way (asynchronous) and two-way (live) interviews, offering flexibility for both recruiters and candidates.

Research shows that organizations using video interviews reduce time-to-hire by up to 50%, especially during initial screening stages (Blacksmith, Willford, & Behrend, 2016). The

ability to interview multiple candidates in a short time frame without scheduling conflicts accelerates decision-making.

Video interviewing reduces costs associated with travel, accommodation, and venue booking. According to a LinkedIn Talent Solutions report (2019), organizations that implemented video interviews reported saving up to 30% on recruitment expenses annually.

Video interviewing platforms, such as HireVue, Spark Hire, and VidCruiter, have become integral to modern recruitment, especially after the COVID-19 pandemic accelerated the shift to remote hiring (Maurer, 2020). These platforms enable one-way (asynchronous) or two-way (live) interviews, allowing candidates to record responses or interact in real time with recruiters.

Time-to-hire refers to the number of days between a job posting and candidate acceptance. Research indicates that prolonged hiring cycles negatively impact employer branding and talent acquisition (Cascio & Montealegre, 2016). According to a study by Deloitte (2020), organizations using video interviews reported a 30–50% decrease in time-to-hire due to faster scheduling, reduced travel delays, and quicker assessments.

Cost-per-hire includes advertising, recruitment agency fees, screening tools, travel expenses, and recruiter time. One-way video interviews reduce these costs by eliminating multiple rounds of in-person interviews and shortening decision cycles (Chapman & Gödöllei, 2017). A LinkedIn Talent Solutions report (2019) found that firms implementing video interviewing saved an average of \$3,000 per hire compared to traditional processes.

Blacksmith et al. (2016) emphasize that candidate experience remains a top concern. Candidates appreciate the flexibility and reduced pressure of asynchronous interviews. However, biases related to appearance or environment can still influence recruiters' perceptions (Brenner et al., 2016). Organizations must balance efficiency with fairness by implementing structured scoring rubrics and AI-driven assessments (Kimbrough et al., 2019).

Video interviewing becomes more effective when integrated with **Applicant Tracking Systems** (ATS), AI-based screening, and job-matching algorithms. Studies by Upadhyay and

Khandelwal (2018) reveal that seamless integration between video platforms and ATS reduces human errors and administrative burdens, further decreasing time and cost metrics.

Despite the benefits, there are concerns about digital divide issues, where candidates lacking access to high-speed internet or a quiet space may be disadvantaged (Guchait et al., 2020). Furthermore, AI-based scoring systems embedded in some platforms raise questions about algorithmic bias and transparency (Raghavan et al., 2020)

While efficient, video interviews can lead to concerns about candidate experience and digital inequity. Not all candidates may have access to high-quality internet or devices, potentially affecting their performance (Levashina et al., 2014).

# 4. Analysis and Discussion

## 4.1 Case Study: Unilever's Use of HireVue

Unilever reported a 75% reduction in time-to-hire after integrating HireVue into its recruitment strategy, primarily by automating early-stage interviews and using AI-driven assessments (HireVue, 2020). The company also noted improved candidate satisfaction and a broader reach across universities and regions.

## 4.2 Organizational Cost-Savings

Video platforms eliminate logistical costs, such as flights and per diem expenses, particularly for multinational firms. Furthermore, HR professionals can reallocate time spent on scheduling and note-taking to strategic functions (Bartram, 2020).

## 4.3 Equity and Bias Considerations

A growing concern is the fairness of AI algorithms used in video interviewing, which may favor candidates based on facial expressions or speech patterns. Addressing bias in machine learning models is vital to ensuring ethical hiring practices (Binns et al., 2018).

# 5. Challenges in Implementation

**Technological Barriers:** Not all candidates possess the tools or tech literacy to perform well in video interviews.

**Privacy Concerns:** Storing video data raises compliance issues related to GDPR and data protection laws.

**Human Connection:** Lack of physical interaction can limit rapport-building and cultural assessment.

## 6. Discussion

The integration of video interviewing into recruitment strategies has clearly demonstrated measurable improvements in time-to-hire and cost-per-hire. Organizations that combine video interviews with structured evaluations and data analytics report higher ROI from their recruitment investments. However, successful implementation depends on organizational culture, infrastructure, and candidate support systems. Transparent AI models, bias mitigation strategies, and human oversight are essential to ensuring fairness and legal compliance.

### 7. Conclusion

Video interviewing platforms have transformed the recruitment landscape by significantly reducing time-to-hire and cost-per-hire. Organizations can streamline screening processes, access a wider talent pool, and cut logistical costs. However, the success of such platforms depends on equitable access, transparent algorithms, and strategic implementation. As digital transformation in HR continues, video interviewing will likely become a staple in modern recruitment—if paired with human-centric practices and strong ethical guidelines.

# 8. References

- Bartram, D. (2020). Reinventing recruitment through technology: How AI and video are reshaping hiring. *International Journal of Selection and Assessment*, 28(4), 389– 397. https://doi.org/10.1111/ijsa.12312
- Binns, R., Veale, M., Van Kleek, M., & Shadbolt, N. (2018). 'It's Reducing a Human Being to a Percentage': Perceptions of Justice in Algorithmic Decisions. *Proceedings*

- of the 2018 CHI Conference on Human Factors in Computing Systems, 1–14. https://doi.org/10.1145/3173574.3173951
- Blacksmith, N., Willford, J. C., & Behrend, T. S. (2016). Technology in the Employment Interview: A Meta-Analysis and Future Research Agenda. *Personnel Assessment and Decisions*, 2(1), 2. https://doi.org/10.25035/pad.2016.002
- Cascio, W. F., & Boudreau, J. W. (2016). The Search for Global Competence: From International HR to Talent Management. Journal of World Business, 51(1), 103–114. https://doi.org/10.1016/j.jwb.2015.10.002
- HireVue. (2020). *Case Study: Unilever and Digital Interviewing*. Retrieved from https://www.hirevue.com
- Levashina, J., Hartwell, C. J., Morgeson, F. P., & Campion, M. A. (2014). The Structured Employment Interview: Narrative and Quantitative Review of the Research Literature. *Personnel Psychology*, 67(1), 241–293. https://doi.org/10.1111/peps.12052
- LinkedIn Talent Solutions. (2019). *Global Recruiting Trends 2019*. Retrieved from <a href="https://business.linkedin.com">https://business.linkedin.com</a>
- Maurer, R. (2020). Video Interviewing Rises During COVID-19 Pandemic. *Society for Human Resource Management (SHRM)*. Retrieved from <a href="https://www.shrm.org">https://www.shrm.org</a>
- Society for Human Resource Management (SHRM). (2021). Standard Metrics for HR.
   Retrieved from <a href="https://www.shrm.org">https://www.shrm.org</a>
- Blacksmith, N., Willford, J. C., & Behrend, T. S. (2016). Technology in the employment interview: A meta-analysis and future research agenda. *Personnel Assessment and Decisions*, 2(1), 12–20. https://doi.org/10.25035/pad.2016.002
- Brenner, F. S., Ortner, T. M., & Fay, D. (2016). Asynchronous video interviewing as a new technology in personnel selection: The applicant's point of view. *Frontiers in Psychology*, 7, 863. https://doi.org/10.3389/fpsyg.2016.00863
- Cascio, W. F., & Montealegre, R. (2016). How technology is changing work and organizations. Annual Review of Organizational Psychology and Organizational Behavior, 3, 349–375. https://doi.org/10.1146/annurev-orgpsych-041015-062352

- Chapman, D. S., & Gödöllei, A. (2017). Video interview technology: A narrative review. *International Journal of Selection and Assessment*, 25(3), 263–273. https://doi.org/10.1111/ijsa.12176
- Deloitte. (2020). *Global Human Capital Trends* 2020. Deloitte Insights. https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2020.html
- Guchait, P., Lei, P., & Cho, S. (2020). Human resource technology disruptions and consequences. *Journal of Human Resources in Hospitality & Tourism*, 19(3), 329–353. https://doi.org/10.1080/15332845.2020.1714763
- Kimbrough, A. M., Combs, J. P., & Davis, C. A. (2019). Applicant reactions to video interviewing: A meta-analysis. *Journal of Managerial Psychology*, *34*(7), 502–517. https://doi.org/10.1108/JMP-09-2018-0386
- LinkedIn Talent Solutions. (2019). The Future of Recruiting 2019.
   <a href="https://business.linkedin.com/talent-solutions/resources">https://business.linkedin.com/talent-solutions/resources</a>
- Maurer, R. (2020). Video interviewing is here to stay. Society for Human Resource
   Management (SHRM). https://www.shrm.org/resourcesandtools/hr-topics/talent acquisition/pages/video-interviewing-here-to-stay.aspx
- Raghavan, M., Barocas, S., Kleinberg, J., & Levy, K. (2020). Mitigating bias in algorithmic hiring: Evaluating claims and practices. *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency*, 469–481. https://doi.org/10.1145/3351095.3372828
- Upadhyay, A. K., & Khandelwal, K. (2018). Artificial intelligence-based recruitment and its impact on human resource management. *International Journal of Research in Engineering, IT and Social Sciences*, 8(3), 197–202.
- Verma, A. K., Ansari, S. N., Bagaria, A., & Jain, V. (2022). The Role of Communication for Business Growth: A Comprehensive Review. World Journal of English Language, 12(3), 164-164.
- Ansari, S., Kumar, P., Jain, V., & Singh, G. (2022). Communication Skills among University Students. *World Journal of English Language*, *12*(3), 103-109.
- Rao, D. N., Vidhya, G., Rajesh, M. V., Jain, V., Alharbi, A. R., Kumar, H., & Halifa,
   A. (2022). An innovative methodology for network latency detection based on IoT

- centered blockchain transactions. *Wireless Communications and Mobile Computing*, 2022(1), 8664079.
- Jain, V. (2021). An overview of wal-mart, amazon and its supply chain. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(12), 749-755.
- Jain, V., & Garg, R. (2019). Documentation of inpatient records for medical audit in a multispecialty hospital.
- Verma, A., Singh, A., Sethi, P., Jain, V., Chawla, C., Bhargava, A., & Gupta, A. (2023). Applications of Data Security and Blockchain in Smart City Identity Management. In *Handbook of Research on Data-Driven Mathematical Modeling in Smart Cities* (pp. 154-174). IGI Global.
- Agarwal, P., Jain, V., & Goel, S. (2020). Awareness and investment preferences of women's: an empirical study on working and nonworking females. *PalArch's Journal* of Archaeology of Egypt/Egyptology, 17(7), 13469-13484.
- Jha, R. S., Jain, V., & Chawla, C. (2019). Hate speech & mob lynching: a study of its relations, impacts & regulating laws. *Think India* (*QJ*), 22(3), 1401-1405.
- Jain, V., & Singh, V. K. (2019). Influence of healthcare advertising and branding on hospital services. *Pravara Med Rev*, *11*, 19-21.
- Jain, V., & Gupta, A. (2012). Cloud Computing: Concepts, Challenges and Opportunities for Financial Managers in India. *Amity Global Business Review*, 7.
- Jain, V., & Ackerson, D. (2023). The Importance of Emotional Intelligence in Effective Leadership. *Edited by Dan Ackerson, Semaphore*, 5.
- Sharif, S., Lodhi, R. N., Jain, V., & Sharma, P. (2022). A dark side of land revenue management and counterproductive work behavior: does organizational injustice add fuel to fire?. *Journal of Public Procurement*, 22(4), 265-288.
- Jain, V. (2021).A review on different types of cryptography techniques. ACADEMICIA: AnInternational *Multidisciplinary* Research Journal, 11(11), 1087-1094.
- Kumar, S., & Jain, V. (2021). A survey on business profitability for a music artist by advertising on YouTube. *Journal of Contemporary Issues in Business and Government*/ Vol, 27(3), 807.

- Chawla, C. H. A. N. C. H. A. L., & Jain, V. I. P. I. N. (2021). Teamwork on employee performance and organization Growth. *Journal of Contemporary Issues in Business and Government*, 27(3), 706.
- MEHRA, A., & JAIN, V. (2021). A review study on the brand image on the customer's perspective. *Journal of Contemporary Issues in Business and Government/* Vol. 27(3), 773.
- Jha, R. S., Tyagi, N., Jain, V., Chaudhary, A., & Sourabh, B. (2020). Role of Ethics in Indian Politics. *Waffen-Und Kostumkunde Journal*, *9*(8), 88-97.
- Kumar, A., Kansal, A., & Jain, V. (2020). A Comprehensive Study of Factor Influencing Investor's Perception Investing in Mutual Funds. *European Journal of Molecular & Clinical Medicine*, 7(11), 2020.
- Veeraiah, V., Ahamad, S., Jain, V., Anand, R., Sindhwani, N., & Gupta, A. (2023, May). IoT for Emerging Engineering Application Related to Commercial System. In *International Conference on Emergent Converging Technologies and Biomedical Systems* (pp. 537-550). Singapore: Springer Nature Singapore.
- Jain, V. (2021). Word of mouth as a new element of the marketing communication mix: Online consumer review. *South Asian Journal of Marketing & Management Research*, 11(11), 108-114.
- Kansal, A., Jain, V., & Agrawal, S. K. (2020). Impact of digital marketing on the purchase of health insurance products. *Jour of Adv Research in Dynamical & Control* Systems, 12.
- Jain, V., Chawla, C., Arya, S., Agarwal, R., & Agarwal, M. (2019). An Empirical Study of Product Design for New Product Development with Special Reference to Indian Mobile Industry. TEST Engineering & Management, 81, 1241-1254.
- Jain, V. (2017). Emerging Digital Business Opportunities and Value. *Data Analytics* & Digital Technologies.
- Khan, H., Veeraiah, V., Jain, V., Rajkumar, A., Gupta, A., & Pandey, D. (2023).
   Integrating Deep Learning in an IoT Model to Build Smart Applications for Sustainable Cities. In *Handbook of Research on Data-Driven Mathematical Modeling in Smart Cities* (pp. 238-261). IGI Global.

- Jain, V, Agarwal, M. K., Hasan, N., & Kaur, G. ROLE OF MICROFINANCE AND MICROINSURANCE SERVICES AS A TOOL FOR POVERTY ALLEVIATION.
- Gupta, N., Sharma, M., Rastogi, M., Chauhan, A., Jain, V., & Yadav, P. K. (2021).
   Impact of COVID-19 on education sector in Uttarakhand: Exploratory factor analysis. *Linguistics and Culture Review*, 784-793.
- Jain, V. (2021). Information technology outsourcing chain: Literature review and implications for development of distributed coordination. ACADEMICIA: An International Multidisciplinary Research Journal, 11(11), 1067-1072.
- Jain, V. I. P. I. N., Chawla, C. H. A. N. C. H. A. L., & Arya, S. A. T. Y. E. N. D. R. A. (2021). Employee Involvement and Work Culture. *Journal of Contemporary Issues in Business and Government*, 27(3), 694-699.
- Setiawan, R., Kulkarni, V. D., Upadhyay, Y. K., Jain, V., Mishra, R., Yu, S. Y., & Raisal, I. (2020). The Influence Work-Life Policies Can Have on Part-Time Employees in Contrast to Full-Time Workers and The Consequence It Can Have on Their Job Satisfaction, Organizational Commitment and Motivation (Doctoral dissertation, Petra Christian University).
- Verma, C., Sharma, R., Kaushik, P., & Jain, V. (2024). The Role of Microfinance Initiatives in Promoting Sustainable Economic Development: Exploring Opportunities, Challenges, and Outcomes.
- Verma, C., Sharma, R., Kaushik, P., & Jain, V. (2024). The Role of Microfinance Initiatives in Promoting Sustainable Economic Development: Exploring Opportunities, Challenges, and Outcomes.
- Jain, V. (2021). An overview on employee motivation. *Asian Journal of Multidimensional Research*, 10(12), 63-68.
- Jain, V. (2021). A review on different types of cryptography techniques "should be replaced by" exploring the potential of steganography in the modern era. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(11), 1139-1146.
- Jain, V., Chawla, C., Arya, S., Agarwal, R., & Agarwal, M. (2019). Impact of Job Satisfaction on relationship between employee performance and human resource management practices followed by Bharti Airtel Limited Telecommunications with

- reference to Moradabad region. *International Journal of Recent Technology and Engineering*, 8, 493-498.
- Verma, C., Sharma, R., Kaushik, P., & Jain, V. (2024). The Role of Microfinance Initiatives in Promoting Sustainable Economic Development: Exploring Opportunities, Challenges, and Outcomes.
- Jain, V., Verma, C., Chauhan, A., Singh, A., Jain, S., Pramanik, S., & Gupta, A. (2024). A Website-Dependent Instructional Platform to Assist Indonesian MSMEs. In *Empowering Entrepreneurial Mindsets With AI* (pp. 299-318). IGI Global.