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Literature Review: The Application of Information Technology in Enhancing Efficiency in Recruiting and Selecting Human Resources for Remote Work

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ABSTRACT

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This research investigates the evolving landscape of remote work recruitment in the era of globalization. Employing a qualitative approach through a literature review, the study highlights the complexity of the remote work recruitment process, necessitating tailored strategies in the digital age. Findings indicate that while the internet and social media may not significantly boost applicant quantity, they are pivotal in refining job openings' targeting and enhancing recruitment efficiency. The study recommends incorporating questionnaires and effective categorization methods in the selection process for increased accessibility and efficiency. Post-employment research suggests leveraging online work platforms for monitoring remote employee performance. This holistic approach ensures effective remote workforce management, monitoring, and optimization in the evolving remote work landscape.

INTRODUCTION

Globalization has become a major driver of paradigm shifts in work, with the emergence of remote workers being one of the most prominent manifestations. This phenomenon is inseparable from global economic integration, the development of communication technology, and shifts in values within the business world (Wang et al., 2021). The emergence of remote workers is a direct result of the advancement of information technology, which enables unrestricted access to information and communication, overcoming geographical constraints in work activities.

One significant impact of globalization on work paradigms is the introduction of flexible work models, where workers are not limited by the physical location of the

office. Remote workers can contribute to their organizations from afar, eliminating geographical barriers and connecting global talent regardless of territorial boundaries (Yang et al., 2022). This phenomenon not only benefits workers by providing flexibility and work-life balance but also enables companies to access talent that may not be available in their local area.

Globalization has also spurred the development of technology infrastructure supporting remote workers (Ferreira et al., 2021). The widespread availability of internet access, online collaboration platforms, and productivity software has laid the foundation for the success of this work model. Organizations are adopting these information technology solutions to bridge geographical gaps, enabling teams to work effectively without having to gather in one place.

While remote work offers many benefits, such as increased flexibility and employee satisfaction, there are also challenges that arise. Managing communication, maintaining company culture, and monitoring performance are some aspects that need to be carefully handled in the context of remote work (Prasad et al., 2020).

Remote work has brought about profound changes in the human resource selection process, with social media screening being one significant impact to be noted. This phenomenon is not just a shift in how talent is sought and evaluated but also reflects organizational adaptation to the developments in the modern workplace. The increasingly social media-involved selection process creates new dynamics in assessing candidates' skills, personalities, and qualifications (Raveendra et al., 2020).

One of the main impacts of remote work on the selection process is the increased use of social media as an effective screening tool. Platforms such as LinkedIn, Twitter, and even Instagram have become valuable additional sources of information for companies seeking remote candidates. Candidates can showcase their portfolios, achievements, and industry insights in more detail through posts and online activities (Abdul et al., 2020). This provides a more holistic understanding of candidates, surpassing what may be seen from a conventional resume or cover letter.

The social media screening process also allows organizations to assess how well candidates can integrate with the company culture, even if they are not physically

present. Through online interactions, recruiters can gain insights into candidates' values and working styles, creating a better understanding of how candidates can contribute to team dynamics and organizational goals (Hangartner et al., 2021).

This research aims to investigate the impact of modern technology usage in employee screening and selection. This paradigm shift carries profound implications for efficiency, diversity, and candidate experience in the recruitment process. In-depth analysis of the positive and negative impacts of modern technology in human resource management is expected to provide valuable insights for companies currently adopting or planning to adopt these innovations.

With the increasing acceptance of modern technology usage in recruitment, this research will cover dimensions such as operational efficiency, bias reduction, and changes in candidate experience as the main focal points. By engaging with these various aspects, this research is expected to provide a comprehensive overview of how modern technology shapes and transforms the landscape of employee screening and selection.

LITERATURE REVIEW

Virtual Teams Theory

The Virtual Teams Theory describes and analyzes the dynamics and characteristics of teams that work in a distributed manner, primarily using information technology to achieve common goals (Robert Jr, 2020). This concept has evolved in response to globalization, advancements in communication technology, and the increasing need for cross-border collaboration. One central figure who has made significant contributions to the development of this theory is Steve McConnell, a project management expert, software engineer, and renowned author of "Rapid Development: Taming Wild Software Schedules."

The Virtual Teams Theory emphasizes the importance of understanding how teams composed of geographically dispersed members can achieve effectiveness, productivity, and optimal coordination. Specific challenges faced by virtual teams involve aspects such as time zone differences, limited physical presence, and the lack of non-verbal communication that can often affect traditional team dynamics

(Morrison-Smith & Ruiz, 2020).

In this theory, information technology is identified as the main pillar supporting the performance of virtual teams. Online platforms, collaboration tools, video conferencing, and project management software are key elements that enable team members to communicate, collaborate, and manage projects efficiently. This approach acknowledges that technological advancements provide solutions to communication and coordination challenges in dispersed teams.

Steve McConnell, through his book "Rapid Development," provides detailed insights into how software development can be efficiently conducted through virtual teams. His contributions extend not only to software development but also to various industrial sectors adopting virtual team models. The Virtual Teams Theory not only highlights technology as a connecting tool but also emphasizes the importance of understanding culture, conflict management, and interpersonal skills in managing virtual teams (Abarca et al., 2020). Therefore, this theory provides a holistic view of how teams operating without geographical boundaries can achieve success in reaching common goals. With the advancement of technology, this theory continues to evolve to provide a foundation for a deeper understanding of the dynamics and management strategies of virtual teams in this modern era.

Theory of Remote Communication

The Theory of Remote Communication, or Mediated Communication Theory, reflects the view that media technology and electronic communication intermediaries play a central role in shaping and influencing human interactions that occur over a distance (Varsha et al., 2022). This theory delves into how the media used for communication not only serves as a tool for conveying messages but also as a modifier of the messages themselves.

Marshall McLuhan, a philosopher and media theorist from Canada, is a key figure who introduced the fundamental concept in the Theory of Remote Communication, known as "the medium is the message." In this view, McLuhan emphasizes that the media or communication intermediaries have an impact that extends beyond the content of the communicated message, affecting how the message is understood and received by the recipient (Azam et al., 2020).

Based on Forsberg & Bennett (2020) this theory can be further elaborated by

considering several key elements:

a. Media Influence on Perception

This theory investigates how the use of communication technology, such as email, telephone, or video conferencing, can influence the perception and understanding of messages. Differences in media can shape how each individual views and responds to information.

b. Media Effects on Clarity and Message Strength

The media used plays a role in determining the clarity and strength of the conveyed message. For example, in written communication, word accuracy is highly regarded, while in verbal communication, tone of voice and body language also play important roles.

c. Media's Role in Interpersonal Dynamics

This theory acknowledges that media influences how individuals interact with each other, especially in the context of remote work. The use of technological intermediaries can shape the dynamics of interpersonal relationships, both positively and negatively.

d. Technology's Role in Creating Social Reality

McLuhan believed that media not only serve as message intermediaries but also create a new social reality. In the context of remote work, technology creates a virtual work environment with its own rules and social norms.

e. Media Impact on Speed and Time Perception

Communication technology influences individuals' perception of time and speed in communication. Messages can be delivered quickly through email or instant messaging, but it can also pose challenges regarding expectations for instant responses.

Theory of Remote Management

The theory of remote management is a work paradigm that emphasizes the ability of team members or employees to work from geographically separated locations, relying on information and communication technology to bridge physical barriers (Kraus et al., 2022). The primary advocate of this concept is Timothy Ferriss, an entrepreneur and author famous for his work "The 4-Hour Workweek," published in 2007. Ferriss advocates for a paradigm shift in how work can be organized and

completed.

In his book, Ferriss highlights that productivity excellence depends not only on the time spent in the office but also on work efficiency, strategic task selection, and the use of technology to effectively work remotely. The concept of the "4-hour workweek" he promotes discusses ideas around task automation, outsourcing, and the importance of flexibility in work location.

According to Bradley (2021), the importance of technology in supporting remote management is reflected in the use of various online communication tools, such as video conferencing, collaboration platforms, and instant messaging applications, which allow teams to stay connected and coordinated without needing to be in the same physical location. Flexibility in time and location of work is a hallmark of this theory, providing individuals with the freedom to manage their work schedules according to their preferences and personal needs.

Remote management also emphasizes the importance of building trust among team members, effective communication, and creating an inclusive work culture (Tsvetkov et al., 2020). Leaders in this context need to develop results-focused leadership skills, ensure adequate support, and understand the best ways to motivate and engage remote team members.

METHODS

This research was conducted using qualitative research methods, utilizing literature review analysis collected from various research databases available. According to Harahap (2020), qualitative research is a scientific approach focused on deep and interpretive understanding of phenomena, emphasizing the context and complexity of the situations under study. In this research, the researchers not only sought answers to specific questions but also aimed to understand the meanings, perceptions, and experiences of the individuals or groups involved. Qualitative methods often involve data collection through interviews, observations, or document analysis, providing room for direct interaction between researchers and participants.

Meanwhile, literature review studies, as described by Adlini et al. (2022) are a research method focused on collecting, analyzing, and synthesizing information from various literature sources relevant to a specific research topic or issue. The main

objective of literature review research is to compile a deep understanding of the development of knowledge, theories, or findings that have existed in a particular field of study.

RESULTS

Based on the literature collected, relevant literature found by the researcher can be seen in Table 1 below.

Table 1. Research Findings

No.	Title of Research	Authors and Year	Research Findings
1.	<i>Does Online Search Improve the Match Quality Of New Hires?</i>	Gürtzgen et al. (2021)	This study investigates the impact of high-speed internet expansion on the quality of matches for new employees. Researchers combined data on internet availability at the local level with individual registration data and job vacancies in Germany. The research findings indicate that internet availability does not have a significant impact on the stability of new matches and their wage levels. These findings are reinforced using job vacancy data, explicitly comparing the outcomes of online and non-online recruitments. Additional results show that online recruitment not only increases the number of applicants and the proportion of mismatched candidates per vacancy but also encourages employers to post more job vacancies.
2.	<i>Online Recruitment: Does Social Networks Characteristic Matter? A Systematic Review of Literature</i>	Ikhwan et al. (2022)	This research indicates that the use of social media for online recruitment, especially for remote workers, helps companies effectively search for employees with suitable characteristics. By leveraging social media platforms, companies can be more precise in attracting individuals who not only possess technical qualifications but also fit with the company's culture and values. This enables companies to

			streamline their employee needs more efficiently, enhance adaptability, and support online recruitment strategies, particularly in the context of remote work.
3.	<i>Algorithmic Management Of Work On Online Labor Platforms: When Matching Meets Control.</i>	Möhlmann et al. (2021)	This research found that online recruitment of remote workers can be enhanced in its effectiveness by utilizing job platforms. These platforms facilitate the matching between company needs and the availability of online workforce in the job market. One key factor uncovered by this research is the platform's ability not only to align candidate qualifications with company needs but also to exert control over remote workers after the selection process. This indicates that job platforms play a role not only in matching but also in managing and supervising remote workers accepted by the company. This study provides a deeper understanding of how platforms can be efficient tools to support online recruitment of remote workers.
4.	<i>Case Study on E-Recruitment Globally During COVID-19 Pandemic</i>	Saini & Tarkar (2024)	This research found that interaction in the interview process in virtual format plays a crucial role in recruiting remote workers. This process involves various methods, including telephone discussions, web interviews, and online assessments with strict procedures. The e-recruitment model examined in this study is identified as a key factor that can help companies meet their workforce needs, especially in remote work conditions. These conclusions highlight the importance of adapting recruitment methods to the ongoing situation, particularly when face-to-face interaction is not

			possible. By leveraging virtual platforms and various online evaluation tools, companies can effectively select and recruit remote workers who meet their needs.
5.	<i>Recruiting Digital Talent: The Strategic Role Of Recruitment In Organisations' Digital Transformation</i>	Gilch & Sieweke (2021)	This research reveals that the interview method is a crucial element in the recruitment process for remote workers online. The researchers developed a method that combines the use of questionnaires with interviews, involving specific indicators. This approach aims to facilitate companies in mapping the skill levels of prospective employees to be recruited. By integrating interviews and questionnaires, companies can be more efficient in assessing the qualifications and suitability of remote job candidates with their needs. This approach can serve as a useful instrument for companies in conducting effective and accurate recruitment processes for remote workers.

The Impact of Internet or Social Media on Employee Recruitment

The impact of the internet on online recruitment is a complex phenomenon with significant implications in two main aspects. Firstly, it can be noted that the internet, although not directly affecting the quantity of applicants during the recruitment process, provides substantial advantages in terms of advertising costs. With various online platforms available, companies can reach potential applicants more cost-effectively compared to traditional recruitment methods. This phenomenon indicates that the internet serves as an effective tool for job openings with cheaper advertising costs, providing greater opportunities for companies to reach various job seekers without incurring significant expenses in the job posting process.

On the other hand, another aspect of the impact of the internet on online recruitment that is worth noting is the positive role played by social media platforms, especially with the implementation of intelligent algorithms. Social media, with these

algorithms, facilitates companies in more easily narrowing down their workforce needs. The algorithms owned by social media platforms can efficiently filter and match candidate qualifications with the specific needs of the company. This not only results in a more effective recruitment process but also ensures that the selection of individuals is based not only on the technical skills required but also aligned with the company's culture and values. Thus, the internet, through social media platforms and their intelligent algorithms, not only becomes an efficient tool for job openings but also helps companies acquire employees who are not only technically qualified but also aligned with the company's cultural identity.

Selection Methods for Remote Workers in Online Recruitment

Online recruitment has become a crucial element in the digital era, and implementing the right methods can enhance efficiency and accuracy in selecting the right employees. One effective step is to involve the analysis of candidates' portfolios through professional platforms such as LinkedIn. By leveraging these resources, companies can gain in-depth insights into the experiences, skills, and recommendations of candidates. LinkedIn as a professional platform provides space for candidates to showcase their achievements and qualifications. This process provides a dual benefit, opening opportunities for companies to examine more than just traditional resumes, while candidates can present their skills in a more holistic manner.

In the interview phase, the use of questionnaires and structured interviews can create a comprehensive and structured approach. Questionnaires filled out by candidates before the interview allow companies to deeply understand their values, preferences, and qualifications. This provides a solid foundation for comparison during the interview session, ensuring that the questions asked can cover key issues identified through the questionnaire. Structured interviews can then be used to delve into specific aspects, clarify questionnaire responses, and delve deeper into the personality and motivations of candidates.

Furthermore, the development of categorization or classification of worker abilities by HRD is a strategic step. By evaluating candidates from various perspectives, such as technical skills, interpersonal abilities, and professional maturity, HRD can group workers undergoing selection. This classification makes it easier for

companies to make recruitment decisions, identifying employee profiles that align with specific needs and company values. Mature categorization also helps minimize subjective bias in the selection process, ensuring that recruitment decisions are based on objective and comprehensive considerations.

By implementing these methods, companies can maximize the potential of online recruitment, not only in attracting qualified candidates but also in ensuring their fit with the company's culture and vision. This initiative not only enhances recruitment efficiency but also optimizes employee contributions to the long-term growth and success of the company.

Monitoring Remote Workers Post-Recruitment

In an increasingly evolving era of remote work, companies rely on online work platforms to ensure efficiency and optimal performance of remotely recruited workers. These platforms are not just monitoring tools but integral solutions that support companies in managing geographically dispersed teams.

Firstly, online work platforms provide comprehensive monitoring capabilities for the activities of remote workers. With features such as time tracking, task progress monitoring, and daily activity tracking, companies can clearly understand the extent to which workers fulfill their responsibilities. This ensures that remote workers stay connected, organized, and contribute optimally.

Furthermore, the use of these platforms allows companies to tailor Key Performance Indicators (KPIs) to the achievements made by workers. With direct access to performance data, companies can accurately measure KPI achievements. This flexibility enables quick adaptation to changing conditions, project priorities, and team dynamics, ensuring that performance indicators are always relevant to actual needs.

Lastly, online work platforms specifically developed by companies serve as supervision tools for monitoring the stability of remote worker performance. Advanced analytical features provide insights into performance trends, participation rates, and work quality. Thus, companies can identify areas that require further attention and take proactive steps to maintain stability and consistency in worker performance.

Through the integration of online work platforms, companies create a well-connected and managed ecosystem, ensuring that remote workers can remain

optimally productive and contribute maximally to the company's success. In the context of the continuously evolving remote work environment, online work platforms become the foundation for ensuring that companies can effectively manage, monitor, and optimize their team's performance.

CONCLUSIONS AND SUGGESTIONS

In facing the challenges and opportunities of online recruitment in the digital era, the impact of the internet and social media becomes a crucial factor that companies need to consider. Although the internet does not directly increase the number of applicants, online platforms provide significant advantages in terms of advertising costs, allowing companies to reach applicants more efficiently. Additionally, intelligent algorithms on social media platforms, especially in the context of online recruitment, enable companies to narrow down their needs more effectively, ensuring the selection of candidates who not only possess technical qualifications but also align with the company's culture and values.

In the context of selecting remote workers online, the right methods are crucial. Portfolio analysis through platforms like LinkedIn provides holistic insights into the experience and skills of prospective employees. Meanwhile, the use of questionnaires before interviews and structured interviews creates a comprehensive approach to selecting employees who fit the company's values. HR departments can also develop skill categorizations for workers, making it easier for companies to make recruitment decisions based on objective and comprehensive considerations.

After recruiting remote workers, it is important to engage online work platforms to monitor and optimize their performance. Comprehensive monitoring features provide visibility into the activities of remote workers, ensuring connectivity and optimal contribution. Customizing KPIs based on worker achievements and using analytical features help companies ensure that performance indicators remain relevant to current needs. Online work platforms, serving as supervision tools, are key to maintaining stability and consistency in the performance of remote workers.

Overall, this approach forms a well-connected and managed ecosystem. Companies can maximize the potential of online recruitment, not only attracting

qualified candidates but also ensuring their alignment with the company's culture and vision. Through deep integration with online work platforms, companies create a solid foundation to ensure that remote workers can perform optimally, contributing maximally to the company's long-term success.

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