Talent Management in the Digital Era: Utilizing Technology for Recruitment and Retention at PT Arutmin Indonesia

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ABSTRACT

This research examines Talent Management in the Digital Era with a focus on the application of technology for recruitment and retention at PT. Arutmin Indonesia. This company has successfully implemented a technology-based talent management strategy using digital platforms, artificial intelligence and data analysis. Recruitment processes, career development and employee retention management through technology have a positive impact on efficiency, effectiveness and employee satisfaction. The research results show that PT. Arutmin Indonesia faces challenges, including employee resistance to technology and data security. Companies address these challenges through technology training, involvement of IT experts, and implementation of strict data security policies. In facing changes in higher education governance, PT. Arutmin Indonesia also implements innovation and change management strategies. Therefore, the conclusion is to increase technology integration, develop data analysis, and strengthen technology-based skills development. The application of intelligent technologies, such as artificial intelligence, may be a future focus for improving talent management. The conclusion confirms that the technological approach to talent management has had a positive impact and provides valuable insights for other companies that wish to involve technology in managing their human resources in the digital era.

Keywords: Talent Management, Digital Era, Utilization of Technology, Recruitment and Retention

INTRODUCTION

In the ever-growing digital era, companies in various sectors are beginning to realize the importance of talent management to achieve competitive advantage. PT. Arutmin Indonesia as a mining company operating in Indonesia is no exception. Talent management is crucial because quality and skilled human resources are essential in maintaining the company's performance and productivity. (Davenport, TH, Harris, J., & Shapiro, J. 2010)

Talent Management in the Digital Era, especially in utilizing technology for recruitment and retention at PT. Arutmin Indonesia, highlights the importance of human resource management strategies that are adaptive to technological developments and the demands of the digital era. In this context, the use of technology can affect the recruitment, selection, and retention processes of employees. (Deloitte. 2017)

The influence of technology on employee recruitment and retention can be seen from the implementation of a talent management system that utilizes technology to identify, recruit, and retain employees with superior potential and performance. In addition, technology also allows for the development of a more efficient and measurable recruitment system, as well as facilitating the employee retention process through a more personal and targeted approach. (Bersin, J. 2014)

In the context of PT. Arutmin Indonesia, the application of technology in talent management can help in identifying employee talent and potential, strengthening efficient and effective recruitment processes, and improving employee retention strategies through a more measurable and sustainable approach. This can also

include the use of technology to manage employee data, implement personalized career development programs, and facilitate digital employee communication and engagement. (World Economic Forum. 2018)

This background is the basis for the importance of implementing talent management strategies at PT. Arutmin Indonesia. By utilizing technology, companies can increase efficiency in the recruitment process, strengthen career development programs, and increase employee retention rates. (Cascio, WF, & Boudreau, JW 2016) The main reasons behind the implementation of technology-based talent management at PT. Arutmin Indonesia are:

1. Global Competition: The mining industry is facing increasingly fierce competition. In attracting and retaining quality workers, companies need to have a superior talent management strategy that can compete globally.
2. Employee Behavior Change Trends: Employees, especially millennials, have different expectations and values in the work environment. The application of technology in talent management can create a better work experience that meets their expectations.
3. Technology as a Facilitator: Technological advancements allow companies to use digital platforms, data analytics, and artificial intelligence in implementing talent management strategies. This not only speeds up the recruitment process but also provides deep insights into employee potential and needs.
4. Improving Operational Efficiency: By utilizing technology, PT. Arutmin Indonesia can automate several aspects of talent management, such as performance evaluation, online training, and employee data management. This can improve the company's operational efficiency.
5. Facing the Challenges of a Changing Workforce: Changing workforce dynamics, including increased mobility and employee expectations for career development, require an adaptive and responsive talent management approach. (Bersin, J., & Feinzig, S. 2015)

By realizing the challenges and opportunities faced, PT. Arutmin Indonesia sees that adopting technology-based talent management is a strategic step to support the company's growth and sustainability in this digital era. Thus, the implementation of innovation in talent management is a crucial step to achieve PT. Arutmin Indonesia's long-term goals amidst constant changes in the world of work.

The purpose of this study was to explore and understand the impact of technology implementation in talent management on the employee recruitment and retention process at PT. Arutmin Indonesia. (Cohen, D. 2019) This study aims to achieve several specific objectives as follows:

1. Identifying Talent Management Trends and Challenges: This study aims to identify talent management trends and challenges faced by PT. Arutmin Indonesia in the digital era. Factors such as changes in employee behavior, global competition, and new expectations from the millennial generation can be the focus of this study.
2. Evaluating the Effectiveness of Technology-Based Recruitment Strategy: One of the objectives of the study is to evaluate the effectiveness of the technology-based recruitment strategy implemented by PT. Arutmin Indonesia. This may involve analyzing the efficiency of the recruitment process, the quality of employees produced, and its impact on business sustainability.
3. Analyzing the Impact of Increasing Employee Retention: The application of technology in talent management is expected to increase the employee retention rate at PT. Arutmin Indonesia. This study aims to analyze the impact of this strategy on employee satisfaction, productivity, and organizational stability.
4. Evaluating the Sustainability of Technology Implementation in Talent Management: This objective covers the long-term sustainability aspects of technology implementation. By identifying potential obstacles and successes, this study aims to provide recommendations on how technology can continue to be implemented and adapted to the evolving needs of the organization.
5. Providing Insights for Future Development: This study aims to provide in-depth insights and recommendations that can be used as a basis for developing future talent management strategies. Through this study, PT. Arutmin Indonesia is expected to better understand how technology can be applied more effectively in the context of talent management.

6. Improving Organizational Competitiveness and Sustainability: Overall, the purpose of this study is to provide a positive contribution to the competitiveness and sustainability of PT. Arutmin Indonesia in the mining industry. By utilizing technology for talent management, it is expected that the company can better face changes in the business environment and remain a major player in the industry. (SHRM. 2019).

Therefore, through these objectives, this study is expected to provide a comprehensive view of how technology can be an effective tool in managing talent at PT. Arutmin Indonesia, as well as provide a deep understanding of its impact on employee recruitment and retention in the digital era.

Here are some strategies that can be used in dealing with changes in higher education governance at PT. Arutmin Indonesia:

1. Digital Talent Development: Improving digital skills in individuals can strengthen the competitiveness of organizations. This strategy involves developing digital skills that meet the demands of today's transformation, such as coordination skills, technical skills, and complex problem-solving skills.
2. Basic ICT Skills: Facilitating the development of digital talent requires basic ICT (Information and Communication Technology) skills. Basic ICT skills are the basis for employees in the digitalization era.
3. Learning Dexterity: Based on research, learning dexterity can be considered as a techno-psycho-social construct to measure digital potential and skills. This strategy enhances learning skills, collaboration, and goal-centric thinking, which are competencies needed in the industrial era 4.0.
4. Curriculum Development: Flexible curriculum development that adapts to changes in the increasingly evolving world of work. This strategy allows employees to develop the skills needed in industry 4.0.
5. Potential Measurement: Potential measurement in the talent identification process has so far used psycho-social constructs. However, along with the development of digital technology,
    Also, in measuring this potential, technological aspects are also taken into account, in addition to psycho-social aspects.
6. Project-Based Learning: Project-based learning strategies allow employees to apply knowledge and skills in real-world contexts. This strategy helps employees develop skills needed in the industrial era. 4.0.
7. Industry Partnerships: Building strong relationships with companies and organizations outside of PT. Arutmin Indonesia, such as internships and research collaborations, can help develop the necessary digital skills.
8. Curriculum Development: Developing a flexible curriculum that can adapt to the changing needs and demands of the ever-evolving world of work can help employees develop the skills needed in industry 4.0.
    (Capelli, P. 2019)

Innovation strategies and change management strategies are the most relevant strategies in facing changes in higher education governance, because they provide effective and efficient approaches in adapting to the global changes that are coming.

Talent Management in the Digital Era, especially in utilizing technology for recruitment and retention at PT. Arutmin Indonesia, highlights the importance of human resource management strategies that are adaptive to technological developments and the demands of the digital era. In this context, the use of technology can affect the recruitment, selection, and retention processes of employees. (Rothwell, WJ, & Kazanas, HC 2014)

The influence of technology on employee recruitment and retention can be seen from the implementation of a talent management system that utilizes technology to identify, recruit, and retain employees with superior potential and performance. In addition, technology also allows for the development of a more efficient and measurable recruitment system, as well as facilitating the employee retention process through a more personal and targeted approach. (Davenport, TH, Harris, J., & Shapiro, J. 2010)

In the context of PT. Arutmin Indonesia, the application of technology in talent management can help in identifying employee talent and potential, strengthening efficient and effective recruitment processes, and improving employee retention strategies through a more measurable and sustainable approach. This can also

include the use of technology to manage employee data, implement personalized career development programs, and facilitate digital employee communication and engagement. (Marler, JH, & Boudreau, JW 2017)

The specific challenges faced in talent management today include various aspects, ranging from demographic changes, technological developments, to job market dynamics. In a global context, these challenges include genetics that can be controlled, an aging population, rising sea levels, the movement of the world faster than ever before, and the gap between the rich and the poor. On the other hand, in the context of education, there are challenges in implementing an independent curriculum, problems faced by teachers, and challenges in online learning for students and students. (Bersin, J. 2017)

In the context of talent management in the digital era, specific challenges include the integration of technology in the recruitment, selection, and retention processes of employees, as well as adaptation to demographic changes and technological developments. In addition, changes in labor market dynamics, the demand for skills relevant to technological developments, and the need for effective employee retention strategies are also challenges that need to be faced. By understanding and addressing these challenges, companies can prepare themselves to manage talent more effectively and adaptively in facing the dynamics of the digital era. (Strohmeier, S., & Piazza, F. 2015)

METHOD

Research with a case study approach for Talent Management in the Digital Era, especially on the application of technology for recruitment and retention at PT. Arutmin Indonesia, is an in-depth and contextual step. This research method involves an in-depth analysis of a particular case to understand and detail the dynamics and impacts of implementing technology-based talent management. (Mariani, A., & Kusumawardhani, A. 2019)

1. Case Identification: The initial stage of this research method is to identify the case or situation that is the focus of the research. In this context, PT. Arutmin Indonesia was chosen as the subject of the study because the decisions or strategies taken by the company in managing talent by utilizing technology have a significant impact. (Armstrong, M. 2019)

2. Data Collection: The researcher will collect data from various sources related to the case of PT. Arutmin Indonesia. This includes interviews with relevant parties in the company, analysis of internal documents, financial reports, and human resources, and direct monitoring of systems and applications used for talent management. (Budhwar, P., & Debrah, Y. (Eds.). 2013)

3. Data Analysis: The collected data is then analyzed in depth. This analysis includes an understanding of the strategic decisions taken by PT. Arutmin Indonesia, the implementation of technology carried out, the resulting impacts, and employee responses to the changes. The data will also be analyzed in the context of relevant theories and frameworks in talent and technology management. (Davenport, TH, Harris, J., & Shapiro, J. 2010)

4. Verification and Validation: The research results were then verified and validated, both through discussion and comparison with existing literature, as well as through reconfirmation to related parties at PT. Arutmin Indonesia. This aims to ensure the accuracy and validity of the findings produced. (Den Hartog, DN, Boon, C., Verburg, RM, & Croon, MA 2013)

The application of the case study method in this study provides a deep understanding of how PT. Arutmin Indonesia succeeded or faced obstacles in managing talent by utilizing technology. With this approach, the study can make a significant contribution to the understanding of talent management in the digital era and provide practical guidance for other companies who want to adopt similar strategies. (Miles, MB, Huberman, AM, & Saldana, J. 2013)

RESEARCH RESULTS AND DISCUSSION

The results of research and discussion related to talent management in the digital era, especially in utilizing technology for recruitment and retention at PT. Arutmin Indonesia, show a focus on implementing a talent management system that is adaptive to the company's internal dynamics. This study also highlights the

importance of using technology in the recruitment, selection, and retention process of employees. (Handoko, AD, & Pratama, AB 2020)

1. Technology Based Recruitment Process

In the research results, it was found that PT. Arutmin Indonesia has successfully implemented a technology-based recruitment process. The application of digital platforms and artificial intelligence in the recruitment process has had a positive impact on efficiency and effectiveness. The use of algorithms and data analysis helps identify candidates who fit the company's needs, speeds up selection, and reduces bias in decision making.

In addition, the adoption of technology also facilitates interaction between the recruitment team and candidates. Candidates can access information about the company, take online interviews, and even take skill tests through digital platforms. This not only speeds up the recruitment process but also improves the candidate experience, creating an innovative company image. (Armstrong, M. 2017)

2. Technology Based Career Development

The study also noted that PT. Arutmin Indonesia has integrated technology into its career development program. Through e-learning and online training platforms, employees can access learning materials, certifications, and skills development training. This system allows for personalization of career development according to the needs and aspirations of each employee.

In addition, the success of this technology-based career development program is reflected in the improvement of employee skills and knowledge. Performance evaluations and certification achievements can be tracked in real-time, providing valuable data for future development planning. This creates an environment where employees feel supported in their career development. (Gupta, N. 2018)

3. Retention Management with a Digital Approach

In the context of retention, PT. Arutmin Indonesia also utilizes technology to understand and meet employee needs. Data analysis related to employee satisfaction, engagement levels, and other retention factors is carried out programmatically. By understanding employee preferences and expectations more deeply, the company can provide appropriate incentives, create welfare programs, and offer attractive development opportunities.

This approach helps identify potential employee turnover risks and take appropriate preventive measures. In addition, the adoption of technology in retention management also includes internal communication platforms and open employee feedback. Employees feel more involved and have a channel to voice their needs, creating an inclusive and responsive company culture. (Saks, AM, & Haccoun, RR 2016)

4. Challenges Overcome and Lessons Learned from Technology Implementation

Despite the success, the research also identified several challenges during the implementation of technology in talent management. Some of these include resistance from employees who are not familiar with technology, the expansion of HR team expertise to manage big data, and the need to ensure employee data security. PT. Arutmin Indonesia took steps to overcome these challenges by providing technology training to employees, engaging IT experts, and implementing strict data security policies. From these learnings, the company continues to develop more mature strategies to support their technology-based talent management initiatives.

In addition, PT Arutmin Indonesia as a leading coal mining company in Indonesia also shows its commitment in providing a competitive coal production process, strict quality assurance procedures, and excellent customer support. This shows that the application of technology in the recruitment and retention process of employees can be an important factor in maintaining the company's competitive advantage. (Stone, RI, & Deadrick, DL 2015)

Based on the research results, the recommendations carried out include increasing technology integration, further development of data analysis aspects, and strengthening aspects of technology-based skill development.

Meanwhile, the application of intelligent technology, such as artificial intelligence, to provide predictive solutions and a deeper understanding of individual needs is expected to be the focus of companies to improve talent management in the future.

Overall, the results of this study and discussion present a comprehensive picture of how PT. Arutmin Indonesia has successfully utilized technology in their talent management. The conclusion shows that this approach has had a positive impact and provides important insights for other companies who want to involve technology in managing their human resources.

CONCLUSION

Based on the results of research on Talent Management in the Digital Era with a focus on the application of technology for recruitment and retention at PT. Arutmin Indonesia, it can be concluded that:

1. PT. Arutmin Indonesia has successfully implemented technology-based talent management by utilizing digital platforms, artificial intelligence, and data analysis.
2. The application of technology in the recruitment process, career development, and employee retention management has had a positive impact on employee efficiency, effectiveness, and satisfaction.
3. PT. Arutmin Indonesia faced several challenges during implementation, including employee resistance to technology and the need to address data security aspects.
4. The company has taken steps to address these challenges, including technology training, engaging IT experts, and implementing strict data security policies.

Recommendation

Based on the findings, several recommendations can be put forward to improve the implementation of technology-based talent management at PT. Arutmin Indonesia:

1. Enhanced Technology Integration: Continuously enhance technology integration throughout the talent management process to maximize efficiency and effectiveness.
2. Data Analysis Development: Focus on developing data analysis skills to gain deeper insights from the information collected and strengthen the basis for decision making.
3. Strengthening Technology-Based Skills Development: Offering more technology-based training and skills development programs to enhance employees' ability to adopt and utilize technology.
4. Intelligent Technology Applications: Exploring intelligent technologies, such as artificial intelligence, to improve prediction and understanding of individual needs and enhance personalization in talent management.
5. Continuous Monitoring and Evaluation: Conduct continuous monitoring and evaluation of technology implementation in talent management to identify areas of improvement and ensure sustainability.

By implementing these recommendations, PT. Arutmin Indonesia can continue to improve their technology-based talent management, create an innovative work environment, and remain competitive in the ever-evolving digital era.

REFERENCES

Armstrong, M. (2017). "Armstrong's Handbook of Human Resource Management Practice." Kogan Page Publishers.

Armstrong, M. (2019). Armstrong's Handbook of Human Resource Management Practice. Kogan Page Publishers.

Bersin, J. (2014). Becoming irresistible: A new model for employee engagement. Deloitte University Press.

Bersin, J. (2017). Disruptions in HR technology: Executive summary. Deloitte University Press.

Bersin, J., & Feinzig, S. (2015). The datafication of HR. Deloitte University Press.

Budhwar, P., & Debrah, Y. (Eds.). (2013). Human resource management in developing countries. Routledge.

Capelli, P. (2019). The technology trap: Capital, labor, and power in the age of automation. Princeton University Press.

Cascio, W. F., & Boudreau, J. W. (2016). The Future of Work: We've Arrived. Where Are We Going? Industrial and Organizational Psychology, 9(4), 565–592.

Cohen, D. (2019). HR technology and the role of the CHRO. SHRM Foundation's Effective Practice Guidelines Series.

Davenport, T. H., Harris, J., & Shapiro, J. (2010). Competing on talent analytics. Harvard Business Review, 88(10), 52–58.

Deloitte. (2017). Rewriting the rules for the digital age: 2017 Deloitte Global Human Capital Trends.

Den Hartog, D. N., Boon, C., Verburg, R. M., & Croon, M. A. (2013). HRM, communication, satisfaction, and perceived performance: A cross-level test. Journal of Management, 39(6), 1637-1665.

Gupta, N. (2018). "Artificial Intelligence in Human Resource Management: Challenges and Opportunities." International Journal of Scientific Research and Modern Education, 3(2), 18131822.

Handoko, A. D., & Pratama, A. B. (2020). "Strategi Manajemen Talenta di Era Digital: Studi Kasus PT. Arutmin Indonesia." Jurnal Manajemen dan Bisnis, 17(2), 123-138.

Mariani, A., & Kusumawardhani, A. (2019). The Influence of Human Resources Management, Technology Utilization, and Work Motivation on Employee Performance in Industrial Revolution 4.0. In Proceedings of the International Conference on Industrial Engineering and Operations Management (pp. 1535-1546).

Marler, J. H., & Boudreau, J. W. (2017). An evidence-based review of HR Analytics. The International Journal of Human Resource Management, 28(1), 3-26.

Miles, M. B., Huberman, A. M., & Saldana, J. (2013). Qualitative data analysis: A methods sourcebook. Sage Publications.

Rothwell, W. J., & Kazanas, H. C. (2014). Mastering the instructional design process: A systematic approach (5th ed.). John Wiley & Sons.

Saks, A. M., & Haccoun, R. R. (2016). "Managing Performance through Training and Development." Cengage Learning.

Society for Human Resource Management (SHRM). (2019). HR technology: An overview.

Stone, R. I., & Deadrick, D. L. (2015). "Challenges and Opportunities Affecting the Future of Human Resource Management." Human Resource Management Review, 25(2), 139-145.

Strohmeier, S., & Piazza, F. (2015). Domain-driven data mining in human resource management: A review of current research. Expert Systems with Applications, 42(4), 1743-1759. World Economic Forum. (2018). The Future of Jobs Report 2018.