

# Human Resources Education and Innovation to Face the Demands of Business in the Digital Age

#### Eric Hermawan 1, Antoni Ludfi Arifin<sup>2</sup>

- <sup>1</sup> Universitas Negeri Jakarta, Indonesia
- <sup>2</sup> Institut Ilmu Sosial dan Manajemen STIAMI, Indonesia



ARTICLE INFO

*Article history:* 

Received

September 09,

2020 Revised

September 17,

2021

Accepted

December 01, 2021

# ABSTRACT This article discussed the importance of education and human resource

(HR) innovation in dealing with business demands in the digital era. Human resources meet business demands through education and innovation to achieve profit and business sustainability goals. Therefore, we have conducted a series of data searches and analyses to answer this paper's core discussion. This research was carried out on several data findings from literature sources of well-known journal publications such as Google Book, Google Scholar, Taylor & France, Elsevier, and other publications that discuss issues of strengthening human business resources towards the era of technology. To get answers to the problems of this study, we involve a coding system, data interpretation, and high-level evaluation to get valid and reliable data. Based on the findings and discussion data, this result show that the importance of education and innovation in increasing the capacity of human business resources was dynamic and adaptable to the demands of the high-tech business era.

become a meaningful input for future business study efforts.

**Keywords**: Innovation Education, Human Resource Education, Digital Age

Thus, this finding answer the search for business HR solutions and

How to cite

Hermawan, E., & Arifin, A., (2021). Human Resources Education and Innovation to Face the Demands of Business in the Digital Age. *Jurnal Iqra'*: *Kajian Ilmu Pendidikan*, (6)2. 136-147.

https://doi.org/10.25217/ji.v6i2.1122

Journal Homepage http://journal.iaimnumetrolampung.ac.id/index.php/ji/

This is an open access article under the CC BY SA license

https://creativecommons.org/licenses/by-sa/4.0/

#### **INTRODUCTION**

Human Resources play an essential function in Business in the digital day. (Aggarwal & Kapoor, 2012). Employees with good human resources are company assets because the company's success can be achieved thanks to the company's skilled employees. (Wehrmeyer, 2017). Employees who deliver high-quality work have a beneficial impact on their co-workers and the Business as a whole. Human resources must be qualified and competent so that businesses can compete. However, to create high-performing workers, businesses must offer training and development programs for all employees. This training will significantly help the Business and its workers. (Marcinkus Murphy, 2012). The knowledge and skills of employees will increase due to their participation in training, enabling the BusinessBusiness to grow and compete with its competitors. To increase business revenue, every company will need skilled workers. Training is a procedure in which everyone is educated and trained in

attitudes and skills to take responsibility for their work. One of the most effective strategies to improve employee capabilities and business profitability is training. (Abou Elnaga & Imran, 2014).

According to Camps and Luna-Arocas, (2012) employee training is essential to enable businesses to avoid significant risks. If a business fails to educate its employees, work accidents can occur. Furthermore, the number of workers who will quit will increase because employees are bored and are not appreciated by the BusinessBusiness. Businesses must also determine the appropriate type of training for their workers, as each type of training will have a different impact on employees. Develop competent and professional human resources; training must be carried out continuously. Employees and businesses will benefit from the training they receive in a variety of ways. The benefits of HR training and development for workers and businesses are summarized here. Businesses will prepare themselves for future difficulties due to training and human resource development. (Festing dkk., 2013).

We decided to review the study of education and innovation in HR in the business world because we wanted to find theories from direct findings of experts and practitioners from various contexts and practices that have been successfully published in many high-impact journals. With the format and design of this review study, we can help solve an HR problem that we see how important it is to strengthen HR in the current era of competition. With the theory that we have found, this is a starting point for researchers, business people, and policymakers to better understand the problems and issues of empowering human resource capacity in the field, which are currently in need of study and evaluation in a procedural way with a framework of study and scientific proof of truth, mainly research thematic ones that bring solutions. (Wahyuni, 2020). Fruthermore, Auerswald and Auerswald, (2012) argue that the emergence of the information age marks the beginning of the twenty-first century. In the digital era, the world seems limitless, he claims. People's behavior, trade products, cost-effectiveness, customer service, and self-service will define the new economy. The critical question is how education will prepare for these changes and educate the twenty-first-century workforce. According to Velasco, (2014) educational institutions must create a profile of graduates with the latest competencies. We look at how technological advances and information affect educational institutions' labor market and human resource preparation.

What distinguishes our study and findings from the literature review design is the empirical study of past studies, which are used as references and references to understand the research topic with the findings of studies conducted by institutions for capacity building of human business resources. While the literature review study where the theoretical summaries, study results, and other study materials were obtained from proven reference sources because we quoted from the findings of high impact publications and used them as the basis for our research activities to create a clear new frame of mind from articulation. Problems that we study and apply in the field. In this way, we can rely on the accuracy and validity of the findings. (Seeck & Diehl, 2017).

The digital era emerged from the rapid growth of globalization, allowing it to penetrate various aspects of life. Human resources are the most critical elements that can affect the quality of education. (Hojeghan & Esfangareh, 2011). The economy is based on digital progress, and progress in the tourism industry is an opportunity, influence, and challenge that demands super innovative human resources. The success of education is influenced by teaching materials, learning media, infrastructure, and

other devices used and by the administration and organizations that handle them. The availability of digital technology can offer significant advantages for school management in various settings. (Ventola, 2014). The educational formula was created to encourage and teach everyone to be knowledgeable and have expertise in various fields. In this case, the author is interested in conducting research and will try to reveal how HR management which includes planning, recruitment, selection, placement, training, and development, is implemented in the digital era. (Armstrong & Taylor, 2020). Hence, the article article discussed the importance of education and human resource (HR) innovation in dealing with business demands in the digital era.

# **METHODS**

The research initially wanted to discuss innovation and HR training towards business progress in the digital era. So first, we determine the core question or problem that will answer the problem. First of all, we understand the problem, and we describe it in the introduction. Next, we first understand the understanding of the literature review and its review system. After that, we tried stand-alone or part of a more extensive assignment. Next, we started a search through the Google engine. Our target is data-based, such as international publications like Elsevier, Google Book, Sagepub, Taylor & France, and Google scholar. In our search, we limited our search publications to journal articles published between 2010 and 2020. (Scheurich, 2014).

Next, so that we find data that we can make into the findings of this article, we begin to analyze the data by involving a data extract system such as a coding system, in-depth interpretation brought by a phenomenological approach so that we can evaluate data and draw conclusions on ready-to-use data by considering elements of validity and reliability—finding data. In all stages of this research, from problem formulation, data search to report writing, we follow a descriptive qualitative design. (Leech & Onwuegbuzie, 2010).

At each review stage, we evaluate the quality of the data we generate from the analysis. We must explain the minimum acceptable design level with the question formulation and design research selection criteria that must go through a more nuanced review and analysis quality assessment using critical data guidelines and design-based data quality. We will carry out this comprehensive quality evaluation using the meta-analysis guidelines and suitability options. So that the data findings can help determine the validity of the conclusions and provide suggestions for future studies. (Schünemann dkk., 2019).

#### **RESULT AND DISCUSSION**

One of the critical knowledge and skills to be considered in strengthening the company's human resources is the science of recruitment and selection. According to the findings of Gamage, (2014) training and studies that focus on the relationship between recruitment and selection methods in manufacturing SMEs in Japan and the success of companies are closely related to the elements of recruitment training. Small and medium-sized enterprises (SMEs) are the backbone of the Japanese economy, accounting for most businesses in all industries. The sector appears to be inactive or doing well in achieving the goals it had hoped for over the last two decades. One of the causes of the high failure rate of SMEs is their inability to pay attention to the human resource component of their BusinessBusiness.

The following finding that focuses on the importance of education in recruitment is Hmoud and Laszlo, (2019). They question whether artificial intelligence will take

over the recruitment and selection of human resources? The recruitment and selection of Human Resources, elements of HR management, integrating artificial intelligence (AI) technology are presented in this article. It has been determined that AI offers recruiters a potential option to optimize talent acquisition by automating time-consuming, repetitive activities such as finding and screening candidates. The paper studies a collection of literature and suggested models and examples of the most frequently used temporary artificial intelligence solutions for human resource acquisition.

# Managing performance

Vo and Stanton, (2011) add that HR managers transition business systems in transferring policies and tasks, the case for performance management practices in the US and Japanese MNEs operating in Vietnam. This study investigates how multinational businesses localize their human resources within their subsidiaries in developing countries by concentrating on employee performance management. This study analyzes four US multinational companies and four Japanese multinational companies operating in Vietnam. Even though these techniques are unknown in Vietnam and may not suit Vietnamese culture, they were successfully transferred to Vietnamese subsidiaries. However, it does not provide any data to support the idea that transfer practices are more likely when the countries' cultures are similar.

Still, with performance management, the findings of Chahal et al., (2016) successfully proved a perceived influence of high-performing human resource practices on business success and organizational learning functions. Their study successfully examined how the business performance of workers in the telecommunications sector is influenced by perceptions of high-performing human resource (HR) practices. The census method was used to survey employees in Jammu and Kashmir. Show reliability and validity; confirmatory factor analysis was performed; structural equation modeling is used to test the hypothesis. High-performance HR practices have a positive effect on business performance, according to results. Between HR practices and business outcomes, organizational learning acts as a buffer.

#### Learning & development.

Regarding learning and developing corporate HR skills, Huang and Lin, (2017) findings through a study of the transformative application of team-based learning in human resource management courses reversing make business education strengthen this study. For example, Taiwanese researchers used the best learning course module, which is based on team-based learning in which students engage in pre-class preview activities, in-class activities, and online discussion after class through modulated assignments. Their testing included two Human Resource Management courses from two Taiwanese colleges for 104 students and two instructors. The findings reveal the relationship between students' perceptions of the essential contributions of team members, motivation, enjoyment, and learning outcomes.

While in the field of human resource management, there is a conceptual artificial intelligence application framework. (Jia dkk., 2018). Their study provides a theoretical foundation for using artificial intelligence (AI) in human resource management (HRM). The ideas underlying the six fundamental characteristics of HRM are combined with the possible application of AI technologies. The consequences for future practice and

research are discussed. This AIHRM conceptual model provides advice and direction for developing artificial intelligence in enterprise human resource management.

#### Establish succession strategy

According to Khera and Gulati, (2012) the development of business human resource education capacity is through a human resource information system (HRIS); according to them, this is not a new concept. However, it changes as the environment changes. The main objective of this HR development is human resource planning (HRP), an essential activity in any business. HRIS stores a large amount of information about company employees, which speeds up the HRP process. It also assists HR managers with strategic tasks, including training and development, succession planning, and applicant tracking.

According to Staehr, (2015) the best way to improve corporate human resource education and innovation is to reduce human resource risk and prepare succession plans. Consider how the state of New York employs a comprehensive personal and financial counselling approach. A combined personal and financial counselling approach on farms in New York State delivers long-term economic results such as improved profitability and decreased interpersonal conflict. Several risk management strategies, such as crop insurance, are used by farmers in New York State to minimize the different kinds of hazards that impact their agricultural operations. However, managing human resource risk, especially succession risk, is an area that farmers often neglect. New tools and methods are required to create a successful company succession plan as the typical farmer in the United States matures.

#### Benefits and compensation

Managing employee benefits and pay is the next critical skill and knowledge in enhancing human business resources. Companies that specialize in pay, benefits, and employee turnover, according to Bryant and Allen, (2013) are HR methods for retaining the most extraordinary employee talent. Employee turnover is notorious for being both costly and inconvenient. Employee turnover expenses often surpass 100 percent of the departing employee's yearly pay. On the other hand, managers are often ignorant of the numerous tools and techniques available for lowering staff turnover. Based on award-winning research and professional experience, this article gives managers various methods for successfully reducing employee turnover. Benefits-based payments and solutions, and alternatives that go beyond compensation and benefits are among the options available.

Similarly, according to Berber and Slavić, (2016) pay and benefits from businesses in European Union nations and Serbian countries aim to look at outsourcing in Human Resource Management. Payroll and benefits outsourcing is less prevalent than outsourcing pensions. Serbian businesses are using outsourcing at an all-time low.

#### Human Resources Information System.

Al-Shibly, (2011) researched and verified a multidimensional and comprehensive HR information system success model. It contains six success indicators: perceived HRIS system quality, perceived HRIS information quality, perceived HRIS ease of use, and perceived HRIS effectiveness (net benefits). HRIS satisfaction influences HRIS satisfaction, and HRIS satisfaction influences HRIS satisfaction. This research looks at its impact on the usability of HRIS based on empirical evidence. In this research, HRIS was more effective than in earlier ones.

Similarly, Jahan, (2014) that HR informatics systems are one of the essential HR technologies in the world today. Business organizations in Bangladesh have started using HRIS in the last five years. However, only a few large companies and government organizations have adopted it. The most critical obstacle to the success of HRIS is the lack of organizational commitment. The benefits of HRIS, on the other hand, outweigh the disadvantages.

#### HR analysis and data

Technical and human obstacles, such as the use of relatively basic HR procedures and conventional information systems, impede the implementation of advanced HR analytics, according to Dahlbom et al., (2020). The findings indicate that when communicating and evaluating HR-related data for corporate decision-making, greater cooperation between data analysts and HR experts is required. For BD to affect HR practices, cultural transformation and organizational reorganization may be needed. Furthermore, it is stated that a human resource analysis will assist general managers and HR executives make better human and organizational capital choices. On the other hand, HR analytics often adopts an "inside-out" strategy, with an HR-centered and academically controlled Center-of-Expertise (CoE). It is time to take an "outside-in" strategy to data analysis, focusing on high-impact, actionable data. (Rasmussen & Ulrich, 2015).

Our study has obtained data findings from various corporate HR literature that show the importance of HR education and innovation, which are essential factors in determining company growth. (Armstrong, 2016). Employees who work and become members of a business or organization are often referred to as employees, laborers employees, workers, workers, and so on, and are often referred to as employees, laborers, employees, workers, workers, and immediately. Because HR has a role that is a critical component that drives the production operations of a company or company, they are employees who need empowerment with skills and understanding of HR work functions. If they understand and are qualified with the principles of HR functions and human resource management tasks, then HR will become the determinant of the elements of production and build and develop a business. (DeCenzo dkk., 2016).

Based on the findings of a review, we can say that HR management has several main tasks to continue to progress and be profitable; the HR manager's duties include managing employee and organizational performance. Here it is clear that the role of Business and government HR managers is vital to maintain (Yong dkk., 2020). Elements of education and other innovations, such as skill learning development, where it is necessary to regulate the method and system for evaluating the performance of each employee, are carried out by the HR manager. Managers must understand and establish company success stories to be motivated to work. (Pasher & Ronen, 2011). Managing employees is not easy, but they will be applicable and productive if human resources are planned and updated with unique skills and innovations. As one of the company's assets, employees have a significant influence on the company's success and the quality of goods offered to customers. (Kersten & Koch, 2010). The goal is to improve HR skills to be more helpful, especially in the digital era. Businesses aim to achieve several goals through training or HR training. This includes developing one's personality, honing talents, and building company loyalty. Companies must recognize and appreciate their employees to feel valued and

motivated at work. (Hershatter & Epstein, 2010). Additional wages, bonuses, or promotions, where applicable, are some of the types of rewards or rewards offered. Businesses need to track their progress and evaluate their results. Businesses must evaluate HR development and training costs to determine the skills or talents workers should learn immediately. Companies can use the assessment findings to decide which elements they need to keep, improve, and leave out. (Bryson & Andres, 2020). After reading this article, companies should provide appropriate online and offline HR training.

According to some estimates, Indonesia will become the fourth-largest economy in the world by 2050. The government is increasingly confident of bringing Indonesia into the fourth industrial revolution. Human resources (HR) should concentrate on being consumers rather than producers. (Purba dkk., 2020). The deployment of blockchain, Internet of Things (IoT), artificial intelligence (AI), big data, virtual reality, augmented reality, and cloud computing are examples of digital transformation. In Indonesia, there is something fresh on the socio-technical front. Big data, artificial intelligence, blockchain, and financial technology have given rise to possibilities and problems. As a regulator, it is essential to enact rules that allow technology to reach its full potential. (Barrett dkk., 2020). This involves purchasing blockchain, artificial intelligence (AI), and big data technologies.

Indonesia is in the midst of the 4th Industrial Revolution or often known as the Industrial Revolution 4.0, which seeks to increase the competitiveness and productivity of the national Industry. (Abou Elnaga and Imran, 2014; Putra and Aslan, 2020; Putra et al., 2020). Automation and digitization are the hallmarks of the industrial revolution and will have a significant impact on the future of the Indonesian Industry. Industrial growth in the digital age is aided by two factors: a large market and many productive human resources. Improving the quality of human resources is one of the main initiatives in the Making Indonesia 4.0 roadmap. Talent will be an essential element for the effective implementation of Industry, according to the Minister of Industry, Airlangga Hartarto. He claims that few individuals have the necessary industrial industry skills to keep up with the latest technological advances (Stearns, 2020). The Industrial Revolution was a period of rapid and dramatic development that affected the human way of life.

The Industrial Revolution 1.0 took place between 1800 and 1900. With the development of the spinning machine, Britain was at the forefront of the revolution. (Meisenzahl and Mokyr, 2012; Aslan, 2019). Productivity in the textile sector increased tenfold. Both iron and steel are essential elements in the production of industrial goods. The second industrial revolution, which began in England in the 18th century, is closely related to the first. The development of electrical technology for Industry and the subsequent third industrial revolution marked the start of the 3.0 Industrial Revolution. According to Janicke and Jacob, (2013) the times have pushed us to be creative. Computer technology, internet connectivity, electronic equipment, smartphones, software system innovation, resource innovation, and new energy are all included in the code. Human connection, data, and communication with machines in virtual form, often referred to as cyber-physical, characterizes Industry 4.0. Human position in the industrial era will shift from operator to competent expert. New jobs will be created for individuals who can discover possibilities spread across sectors. This fourth-generation revolution results from the German government's initiative to boost computer production. (Flores dkk., 2020). According to David Perry, humans will live in uncertainty in the Industry 4.0 era, and they must anticipate the future

(Denyer dkk., 2011). He believes that disruptive technology is coming at breakneck speed and that many business stories have already left a bitter taste in his mouth. Perry said humans must react to change intelligently and wisely.

The findings from our study have confirmed that the duties and roles of HR will not be maximized if they are not trained and continuously upgraded their skills and work skills. For example, managing salaries, pensions, and employee benefits can retain those good employees because the high benefits bind them to receive. Developing the potential of employees and the organization is also essential. It is based on the results of our study. This potential must continue to be developed so that HR managers can manage other functions such as IT-based administrative tasks. Likewise, regulating the principle system of benefits, rewards, and the level of employee compliance is very important to provide to HR managers so that employees, companies, and customers will get the benefits of being in companies and organizations (Archimi dkk., 2018).

The findings of our study have yielded several vital points to improve the role of HR in companies and public organizations. The results of our study explain how important the findings from previous studies are for increasing the capacity of human business resources. (Batt & Valcour, 2003). Because the findings of the study on strengthening human business resources that we conducted are an essential solution that serves to understand what the experts say from their experiences and findings on projects to strengthen corporate human resources or public work units (Lis, 2012), then with these findings, we can add to the function and role of the company's human resources which we believe is one of the determinants of productivity factors and develop the company towards profit and sustainability.

The researchers believe that one way to improve the quality of human resources in any company is by reviewing the literature on the results of previous studies. This means that researchers must obtain field findings from various business and country contexts and then examine and present them in the local context (Ulrich, 2016). Thus, data users and business drivers have many theories and practices that will become solutions for improving human resources in their business environment so that the quality of human resources in a country like Indonesia can quickly adapt and even be highly competitive, among others, through studies, training, and HR development practices.

#### **CONCLUSION**

We reiterate that this business analysis study has a core objective: to discuss strengthening and improving the work skills of the company's human resources in the face of a very challenging digital era. We answer this question by relying on secondary data from reviewing articles published in high-impact journals published from 2010 to 2020. Based on the results of these studies and discussions, we can conclude that there are several skills that we have gained from these results. Field study on the issue of HR skills that are actively working. In an increasingly competitive digital era. The skills and education we found included: managing performance, learning development, establishing company success stories for employees, managing pensions, employee benefits, managing payroll, promotions, training and upgrading employees, managing IT-based HR, and all other functions assigned to managers Office HR so that all parties, employees, company and company customers, business partners and other consumers benefit when they become part of the company.

#### **ACKNOWLEDGEMENT**

The authors received donors in working on this project. For that reason, we would like to thank and appreciate all parties; colleagues, supervisors, editors, and academics.

#### **AUTHOR CONTRIBUTION STATEMENT**

This project is a shared authorship and therefore each author has share and contribute their role as we agreed. In another word, there is no any conflict in completing the project.

#### **REFERENCES**

- Abou Elnaga, A., & Imran, A. (2014). The impact of employee empowerment on job satisfaction theoretical study. *American Journal of Research Communication*, 2(1), 13–26. Google Scholar
- Aggarwal, N., & Kapoor, M. (2012). Human resource information systems (HRIS)-Its role and importance in business competitiveness. *Gian Jyoti E-Journal*, 1(2), 1–13.Google Scholar
- Al-Shibly, H. (2011). Human resources information systems success assessment: An integrative model. *Australian Journal of Basic and Applied Sciences*, *5*(5), 157–169. Google Scholar
- Archimi, C. S., Reynaud, E., Yasin, H. M., & Bhatti, Z. A. (2018). How perceived corporate social responsibility affects employee cynicism: The mediating role of organizational trust. *Journal of Business Ethics*, 151(4), 907–921. https://doi.org/10.1007/s10551-018-3882-6
- Armstrong, M. (2016). Armstrong's handbook of management and leadership for HR: Developing effective people skills for better leadership and management. Google Scholar
- Armstrong, M., & Taylor, S. (2020). *Armstrong's handbook of human resource management practice*. Google Scholar
- Aslan. (2019). Peran Pola Asuh Orangtua di Era Digital. *Jurnal Studia Insania*, 7(1), 20–34. http://dx.doi.org/10.18592/jsi.v7i1.2269
- Auerswald, P., & Auerswald, P. E. (2012). The coming prosperity: How entrepreneurs are transforming the global economy. OUP USA. Google Scholar
- Barrett, C. B., Benton, T., Fanzo, J., Herrero, M., Nelson, R., Buckler, E. S., Cooper, K. A., Culotta, I., Fan, S., & Gandhi, R. (2020). Socio-technical Innovation Bundles for Agri-food Systems Transformation: A Nature Sustainability Expert Panel Report. Report of the International Expert Panel on Innovations to Build Sustainable, Equitable, Inclusive Food Value Chains. *Nature Sustainability*. Google Scholar
- Batt, R., & Valcour, P. M. (2003). Human resources practices as predictors of workfamily outcomes and employee turnover. *Industrial Relations: A Journal of Economy and Society*, 42(2), 189–220. https://doi.org/10.1111/1468-232X.00287
- Berber, N., & Slavić, A. (2016). Human resource (HR) outsourcing in European compensation management in the light of CRANET research. *Acta Polytechnica Hungarica*, 13(3), 207–225. Google Scholar
- Bryant, P. C., & Allen, D. G. (2013). Compensation, benefits and employee turnover: HR strategies for retaining top talent. *Compensation & Benefits Review*, 45(3), 171–175. https://doi.org/10.1177%2F0886368713494342
- Bryson, J. R., & Andres, L. (2020). Covid-19 and rapid adoption and improvisation of online teaching: Curating resources for extensive versus intensive online

- learning experiences. *Journal of Geography in Higher Education*, 44(4), 608–623. https://doi.org/10.1080/03098265.2020.1807478
- Camps, J., & Luna-Arocas, R. (2012). A matter of learning: How human resources affect organizational performance. *British Journal of Management*, 23(1), 1–21. https://doi.org/10.1111/j.1467-8551.2010.00714.x
- Chahal, H., Jyoti, J., & Rani, A. (2016). The effect of perceived high-performance human resource practices on business performance: Role of organizational learning. *Global Business Review, 17*(3\_suppl), 107S-132S. https://doi.org/10.1177%2F0972150916631193
- Dahlbom, P., Siikanen, N., Sajasalo, P., & Jarvenpää, M. (2020). Big data and HR analytics in the digital era. *Baltic Journal of Management*, 15(1), 120–138. https://doi.org/10.1108/BJM-11-2018-0393
- DeCenzo, D. A., Robbins, S. P., & Verhulst, S. L. (2016). Fundamentals of human resource management. John Wiley & Sons. Google Scholar
- Denyer, D., Parry, E., & Flowers, P. (2011). "Social", "Open" and "Participative"? Exploring personal experiences and organisational effects of enterprise2. 0 use. *Long Range Planning*, 44(5–6), 375–396.
- Festing, M., Schäfer, L., & Scullion, H. (2013). Talent management in medium-sized German companies: An explorative study and agenda for future research. *The International Journal of Human Resource Management*, 24(9), 1872–1893. https://doi.org/10.1080/09585192.2013.777538
- Flores, E., Xu, X., & Lu, Y. (2020). Human Capital 4.0: A workforce competence typology for Industry 4.0. *Journal of Manufacturing Technology Management*. https://doi.org/10.1108/JMTM-08-2019-0309
- Gamage, A. S. (2014). Recruitment and selection practices in manufacturing SMEs in Japan: An analysis of the link with business performance. *Ruhuna Journal of Management and Finance*, 1(1), 37–52. Google Scholar
- Hershatter, A., & Epstein, M. (2010). Millennials and the world of work: An organization and management perspective. *Journal of business and psychology*, 25(2), 211–223.
- Hmoud, B., & Laszlo, V. (2019). Will artificial intelligence take over humanresources recruitment and selection? *Network Intelligence Studies*, 7(13), 21–30.
- Hojeghan, S. B., & Esfangareh, A. N. (2011). Digital economy and tourism impacts, influences and challenges. *Procedia-Social and Behavioral Sciences*, 19, 308–316. https://doi.org/10.1016/j.sbspro.2011.05.136
- Huang, C.-K., & Lin, C.-Y. (2017). Flipping business education: Transformative use of team-based learning in human resource management classrooms. *Journal of Educational Technology & Society*, 20(1), 323–336. Google Scholar
- Jahan, S. S. (2014). Human resources information system (HRIS): A theoretical perspective. *Journal of Human Resource and Sustainability Studies*, 2014.
- Janicke, M., & Jacob, K. (2013). A third industrial revolution. *Long-term governance for social-ecological change*, 47–71. Google Scholar
- Jia, Q., Guo, Y., Li, R., Li, Y., & Chen, Y. (2018). A conceptual artificial intelligence application framework in human resource management. *Proceedings of the International Conference on Electronic Business*, 106–114. Google Scholar
- Kersten, W., & Koch, J. (2010). The effect of quality management on the service quality and business success of logistics service providers. *International Journal of Quality & Reliability Management*. https://doi.org/10.1108/02656711011014302

- Khera, S. N., & Gulati, K. (2012). Human resource information system and its impact on human resource planning: A perceptual analysis of information technology companies. *Journal of Business and Management*, 3(6), 6–13. Google Scholar
- Leech, N. L., & Onwuegbuzie, A. J. (2010). Guidelines for conducting and reporting mixed research in the field of counseling and beyond. *Journal of Counseling & Development*, 88(1), 61–69.
- Lis, B. (2012). The relevance of corporate social responsibility for a sustainable human resource management: An analysis of organizational attractiveness as a determinant in employees' selection of a (potential) employer. *management revue*, 279–295. Google Scholar
- Marcinkus Murphy, W. (2012). Reverse mentoring at work: Fostering cross-generational learning and developing millennial leaders. *Human Resource Management*, 51(4), 549–573. https://doi.org/10.1002/hrm.21489
- Meisenzahl, R. R., & Mokyr, J. (2012). The Rate and Direction of Invention in the British Industrial Revolution. University of Chicago Press. Google Scholar
- Pasher, E., & Ronen, T. (2011). The complete guide to knowledge management: A strategic plan to leverage your company's intellectual capital. John Wiley & Sons. Google Scholar
- Purba, B., Nainggolan, L. E., Siregar, R. T., Chaerul, M., Simarmata, M. M., Bachtiar, E., Rahmadana, M. F., Marzuki, I., & Meganingratna, A. (2020). *Ekonomi Sumber Daya Alam: Sebuah Konsep, Fakta dan Gagasan*. Yayasan Kita Menulis.
- Putra, P. & Aslan. (2020). Pengembangan bahan ajar berbasis imtaq dan iptek di era revolusi industri 4.0 pada mata pelajaran sains madrasah ibtidaiyah. *Ta`Limuna: Jurnal Pendidikan Islam*, 9(1), 1–15. https://doi.org/10.32478/talimuna.v9i1.345
- Rasmussen, T., & Ulrich, D. (2015). Learning from practice: How HR analytics avoids being a management fad. *Organizational Dynamics*, 44(3), 236–242.
- Scheurich, J. (2014). Research method in the postmodern. Routledge.
- Schünemann, H. J., Vist, G. E., Higgins, J. P., Santesso, N., Deeks, J. J., Glasziou, P., Akl, E. A., Guyatt, G. H., & Group, C. Grade. M. (2019). Interpreting results and drawing conclusions. *Cochrane handbook for systematic reviews of interventions*, 403–431. https://doi.org/10.1002/9781119536604.ch15
- Seeck, H., & Diehl, M.-R. (2017). A literature review on HRM and innovation-taking stock and future directions. *The International Journal of Human Resource Management*, 28(6), 913–944. https://doi.org/10.1080/09585192.2016.1143862
- Staehr, A. E. (2015). Human resource risk and succession planning: Implementing an integrated personal and financial consulting model in New York State. *Agricultural Finance Review*. https://doi.org/10.1108/AFR-02-2015-0008
- Stearns, P. N. (2020). The industrial revolution in world history. Routledge.
- Ulrich, D. (2016). HR at a crossroads. *Asia Pacific Journal of Human Resources*, 54(2), 148–164.
- Velasco, M. S. (2014). Do higher education institutions make a difference in competence development? A model of competence production at university. *Higher Education*, 68(4), 503–523. https://doi.org/10.1007/s10734-014-9725-1
- Ventola, C. L. (2014). Mobile devices and apps for health care professionals: Uses and benefits. *Pharmacy and Therapeutics*, 39(5), 356.
- Vo, A., & Stanton, P. (2011). The transfer of HRM policies and practices to a transitional business system: The case of performance management practices in the US and Japanese MNEs operating in Vietnam. *The International Journal of Human*

*Resource Management*, 22(17), 3513–3527. https://doi.org/10.1080/09585192.2011.560876

- Wahyuni, S. (2020). Strategi Penguatan Kapasitas Lembaga Pelatihan dalam Meningkatkan Kompetensi SDM Aparatur untuk Mewujudkan Learning Organization. *BESTARI*, 1(1), 32–46. Google Scholar
- Wehrmeyer, W. (2017). *Greening people: Human resources and environmental management*. Routledge. Google Scholar
- Yong, J. Y., Yusliza, M.-Y., Ramayah, T., Chiappetta Jabbour, C. J., Sehnem, S., & Mani, V. (2020). Pathways towards sustainability in manufacturing organizations: Empirical evidence on the role of green human resource management. *Business Strategy and the Environment*, 29(1), 212–228. Google Scholar

### **Copyright Holder:**

© Hermawan, E., & Arifin, A., (2021)

# First Publication Right:

© Jurnal Iqra' : Kajian Ilmu Pendidikan

This article is under:





