



Effect of e-HRM Transformation, HR Quality Development, and Information Technology on Organizational Performance

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Abstract: A scientific article from a literature study titled "Transformation of e-HRM in Information Technology-Based HR Quality Development on Organizational Performance" aims to develop a research hypothesis on the impact of variables to be used in additional research, within the context of management information systems. This paper was written using the library research approach, with information from online academic databases like Google Scholar, Mendeley, and others. As a consequence of this article, it has been determined that: 1) e-HRM transformation; 2) HR Quality Development; and 3) Information Technology all have an impact on organizational performance.

Keyword: Organizational Performance, e-HRM, HR Quality Development and Information Technology

INTRODUCTION

In the growing digital era, the use of information technology has become a very important requirement for companies to improve organizational performance. One way to do this is through e-HRM transformation and developing the quality of human resources. The problem formulation contains article questions that must be explained in the discussion and answered in the conclusion.

Transformation of e-HRM or electronic Human Resource Management is the management of human resources by utilizing existing information technology. With the e-HRM transformation, companies can optimize the use of information technology to increase efficiency and effectiveness in managing human resources. The use of e-HRM can help companies speed up administrative processes, minimize errors, and reduce operational costs.

In addition to e-HRM transformation, human resource quality development is also an important factor that can affect organizational performance. Human resource quality development is a long-term investment for the company. With the development of human resource quality, employees will have better knowledge and skills in carrying out their duties. This will help increase productivity and effectiveness in carrying out tasks in the company.

The use of information technology and e-HRM transformation can assist in facilitating the development of quality human resources. Companies can implement various types of training and skills development using information technology. Some examples are online learning, simulation, and game-based learning. With the existence of information technology, companies can more easily monitor and measure the results of training and developing the quality of human resources carried out.

Overall, the influence of e-HRM transformation, HR quality development, and information technology on organizational performance is very important. Companies that are able to optimize the use of information technology for e-HRM transformation and HR quality development will find it easier to achieve goals and improve organizational performance. Companies must also keep abreast of developments in information technology and update existing HRM systems in order to increase effectiveness in managing human resources and achieve optimal organizational performance.

BACKGROUND OF THE PROBLEM.

In the current era of digitalization, information technology plays a very important role in managing businesses and organizations. The use of information technology in managing human resources (HRM) and HRM (Human Resource Management) processes has grown rapidly in recent years, especially with the adoption of e-HRM.

E-HRM transformation and HR quality development are key factors in improving organizational performance. E-HRM transformation can speed up and simplify human resource management, which in turn can improve organizational efficiency and effectiveness. Meanwhile, developing the quality of human resources can improve the competence and capabilities of employees, which has a positive impact on overall organizational performance.

However, even though the adoption of information technology and e-HRM transformation as well as the development of HR quality have become trends in human resource management, there are still many organizations that have not fully utilized this potential to improve their performance. Therefore, it is important to clarify the effect of e-HRM transformation, HR quality development, and information technology on organizational performance, to provide guidance for organizations in improving their performance and achieving competitive advantage in the market.

BRIEF DEFINITION OF THE PROBLEM

The following issues can be formulated considering the background to provide hypotheses for additional research:

1. Is Organizational Performance Affected by e-HRM Transformation?
2. Does the development of HR quality impact organizational performance?
3. Is organizational performance impacted by information technology?

LITERATURE REVIEW

Organizational performance

Organizational performance can be defined as the ability of an organization to its goals and objectives effectively and efficiently. (Farhad Analoui 2014). To measure the performance of an organization, which is based on three main dimensions: finance, internal processes, and human resources. (Rajesh Balkrishnan dan Suresh Kandappa 2020).

According to Mohammad Sadeghi Moghaddam and Farhad Analoui (2014) and article Richard M. Walker and Julie M. Brewer (2006), dimensions, indicators, synthesis or factors that play a role in the performance of an organization can vary depending on the context of the organization concerned. However, in general, there are several dimensions, indicators, syntheses or factors that are often associated with the performance of an organization, among others:

- a) Finance: covers aspects such as profits, income, and expenditure.
- b) Internal processes include the effectiveness and efficiency in running an organization's business processes, such as production cycle time, product quality, and process error rate.
- c) Human Resources: includes aspects such as employee productivity, employee satisfaction, and absence rates.
- d) Customers: covers aspects such as customer satisfaction, customer retention, and customer complaints.
- e) Innovation: covers aspects such as the number of patents and copyrights generated, as well as success in introducing new products or services.

The impact of Information Technology Capability on Organizational Performance in Indonesian Small and Medium Enterprises. Ayu Ketut Rachmi Handayani, dkk. (2021) published in the International Journal of Innovation, Creativity and Change. The Effect of Technology Acceptance and Service Quality on Organizational Performance in Indonesian E-commerce by Nadira Fitriyani, dkk. (2020) published in the International Journal of Innovation, Creativity and Change.

Quality development of SDM

Quality development can be defined as a series of efforts by an organization to improve the abilities, skills, knowledge, and attitudes of employees to meet the demands of work, organizations, and changing business environments. It aims to improve the performance of individuals and organizations as a whole. (Rini Kuswati, dkk.2018).

And according to Aminudin, dkk. (2019), SDM quality development is a series of activities aimed at improving the abilities, knowledge, skills, and attitudes of employees so that they can more effectively perform their duties and responsibilities at work. The quality development of SDM also aims to improve the overall performance of the organization through the improvement of individual performance. The quality development process of SDM includes a variety of activities such as training, education, work experience, and self-learning.

The dimensions, indicators, synthesis or factors that play a role in SDM quality development may vary depending on the SDM development approach or model used. However, in general, there are several factors that are often considered important in the development of SDM quality, among others:

- a) The process of identifying SDM development needs is carried out by analyzing the abilities, knowledge, and skills required by individuals or groups of employees in order to fulfill their tasks and responsibilities more effectively.
- b) SDM Development Program Design: SDM development program design includes curriculum development, development of training materials, selection of learning methods, and determination of learning goals.
- c) Implementation of SDM development program: implementation of the SDM Development Program is carried out by providing training or learning to employees according to the design of the program that has been made.
- d) Evaluation of SDM development program: an evaluation of the SDM Development program is carried out to find out whether the program is effective in improving SDM quality and performance of individuals or groups of employees.

Some indicators or factors that can be measured to assess the success of SDM quality development programs include improving employee knowledge and skills, improving individual or group performance, increasing employee motivation and commitment to work, and improving productivity and quality of work.

The Effect of e-HRM Implementation on Employee Performance: The Mediating Role of Competence Development and Work Motivation. (Purnamasari dan Sunarsih 2021).

The Effect of E-HRM Implementation and Competency Development on Employee Performance: The Role of Work Motivation as a Mediator. (Kurniawan dan Sunarti 2020).

Information technology

According to Laudon, K.C. Information Technology (IT) can be defined as a set of interrelated tools, equipment, and procedures in collecting, storing, processing, transmitting, and obtaining information.

According to O'Brien, J.A., & Marakas, G.M. (2011) in the book "Management Information Systems" information technology (IT) can be defined as "The use of digital technology, including computers and telecommunications, to process and distribute information". This definition places emphasis on the processing and distribution of information using digital technologies, such as computers and telecommunications.

Here are some of the dimensions, indicators, synthesis, or factors that play a role in information technology:

- a) IT Infrastructure: IT infrastructure includes hardware, software, networks, and databases used to collect, manage, and store information.
- b) Application Development: Application development includes the process of designing, developing, and testing information systems to meet business needs.
- c) IT Security: IT security includes actions taken to protect information and information systems from threats such as malware, hackers, and hardware or software failures.
- d) Data management: Data management includes the process of collecting, managing, and analyzing data to generate information that is useful for decision-making.
- e) E-Commerce: E-commerce includes the use of information technology to conduct business transactions electronically via the Internet.
- f) Mobile Computing: Mobile computing includes the use of information technology on mobile devices such as smartphones and tablets to access information and carry out business actions.

Some previous research has been done on information technology among others Mulyadi, D., & Hidayat, W. (2019). The Influence of Information Technology on Employee Performance Mediated by E-HRM and Organizational Citizenship Behavior (OCB). *European Journal of Business and Management Research*, 4(5), 59-64. And Puspitasari, E., and Kurniawan, A. (2020). The impact of the use of information technology and the implementation of e-HRM on employee performance. *Scientific Journal of Management and Business*, 18(2), 49-59.

Relevant Research

The discussion presented above is supported by pertinent research. Table 1 of the pertinent research below includes a summary of the debate and synthesis from above, making it easy to see how the foundation for the hypothesis was established.

Table 1: Relevant Research

No	Authors (Year)	Previous Research Results	Similarities With This Article	The Difference with This Article	Basic Hypothesis
1	Afsar, B., Shahjehan, A., & Khan, MM (2017)	Electronic Human Resource Management (e-HRM) and its impact on organizational performance: moderating role of organizational culture. Management	Implementation of e-HRM can improve organizational performance, especially in terms of speed and accuracy in making human	e-HRM has an effect on Organizational Performance but not yet on decision-making policies	H1

		Research Review, 40(6), 640-654	resource decisions		
2	Chen, CJ, & Huang, JW (2014)	Strategic human resource practices and innovation performance—The mediating role of knowledge management capacity. <i>Journal of business research</i> , 67(1), 18-22.	Affects knowledge management capacity, which in turn influences organizational innovation performance	e-HRM influences Organizational Performance	H1
3	Cho, YJ, & Lee, S. (2017)	The impact of e-HRM on HRM effectiveness: conceptualization and empirical validation. <i>International Journal of Human Resource Management</i> , 28(12), 1737-1759	e-HRM implementation positively affects the effectiveness of human resource management	HR Quality Development affects Organizational Performance	H2
.4	Dadfar, H., Akbari, M., & Asgari, N. (2017)	The impact of electronic human resource management on organizational performance. <i>International Journal of Economics, Commerce and Management</i> , 5(7), 18-26	Implementation of e-HRM also significantly affects organizational performance, especially in terms of productivity and efficiency	Productivity influences HR Quality Development	H2
5	Fang, YH, Chiu, CM, & Wang, ETG (2011)	Understanding factors affecting employee acceptance of e-HRM systems. <i>Asia Pacific Management Review</i> , 16(4), 581-603	Employee acceptance of e-HRM implementation is very important in influencing the positive effect of e-HRM transformation on organizational performance	Information Technology affects Organizational Performance	H3

METHOD

This literature review was written using the qualitative descriptive approach and library research using the online academic programs Mendeley, Google Scholar, and other. The use of the literature review in qualitative research must be consistent with the methodological premises. This means that it must be applied deductively to avoid directing the researcher's inquiries. The exploratory nature of qualitative research makes it one of the primary justifications for undertaking it. (H. Ali, Limakrisna, & 2013).

RESULTS AND DISCUSSION

Based on relevant theoretical studies and previous research, the discussion of this literature review article is:

1. Effect of e-HRM Transformation on Organizational Performance.

HR Information System as an integrated information system designed to increase efficiency by collecting HR data and to make HR documents more useful as a source of information. (Mathis, 2006).

E-HRM transformation is a concept related to the use of information technology in managing human resources in an organization. This transformation can positively affect organizational performance.

According to Afsar, B., Shahjehan, A., & Khan, MM (2017). In his research, Electronic Human Resource Management (e-HRM) and its impact on organizational performance: moderating the role of organizational culture. *Management Research Review*, 40(6), 640-654. This study shows that the implementation of e-HRM can improve organizational performance, especially in terms of speed and accuracy in making human resource decisions. This research also shows that organizational culture moderates the relationship between e-HRM and organizational performance.

The implementation of e-HRM significantly affects knowledge management capacity, which in turn affects the innovation performance of the organization. Chen, CJ, & Huang, JW (2014). Strategic human resource practices and innovation performance—The mediating role of knowledge management capacity. *Journal of business research*, 67(1), 18-22.

Meanwhile, according to Cho, YJ, & Lee, S. (2017). The impact of e-HRM on HRM effectiveness: conceptualization and empirical validation. *International Journal of Human Resource Management*, 28(12), 1737-1759. His research shows that the implementation of e-HRM positively affects the effectiveness of human resource management, especially in terms of increasing the speed and accuracy in making human resource decisions.

Implementation of e-HRM also significantly affects organizational performance, especially in terms of productivity and efficiency. Dadfar, H., Akbari, M., & Asgari, N. (2017). The impact of electronic human resource management on organizational performance. *International Journal of Economics, Commerce and Management*, 5(7), 18-26.

And with the existence of e-HRM, employee acceptance of e-HRM implementation is very important in influencing the positive influence of e-HRM transformation on organizational performance. Fang, YH, Chiu, CM, & Wang, ETG (2011). Understanding factors affecting employee acceptance of e-HRM systems. *Asia Pacific Management Review*, 16(4), 581-603

2. Effect of HR Quality Development on Organizational Performance.

Development of quality human resources (HR) is a process that aims to improve the ability, skills, and knowledge of employees in order to improve organizational performance. Performance improvements that can occur are as follows:

- a) Individual and team performance improves: In a study by Agarwal and Chandra (2015), they found that HR quality development positively affects individual and team performance. This happens because developing the quality of human resources can increase the knowledge and skills of employees, so that they can do a better job.
- b) Improved organizational performance: A study by Karim and Hasan (2018) showed that developing quality human resources positively affects organizational performance. This happens because employees who have good abilities and skills can

do work more effectively and efficiently, so that organizational performance can increase.

- c) Innovation increases: In a study by Jafri, Bashir, and Riaz (2016), they found that developing quality HR positively influences innovation in organizations. This happens because employees who have good abilities and skills can generate new ideas and innovate in their work.
- d) Increased employee satisfaction: A study by Ma, Yan, and Wang (2017) showed that developing quality HR positively affects employee satisfaction. This happens because the development of human resource quality can provide opportunities for employees to improve their abilities and skills, so that they feel more valued by the organization.

3. Information Technology's Effect on Organizational Performance

Information technology (IT) has become an important part of the success of an organization. IT assists in improving efficiency, increasing the quality of products and services, and reducing production costs. However, the use of IT does not only affect the internal operations of the organization, but can also affect the overall performance of the organization. The following is an explanation of the influence of IT on organizational performance:

- a. Improving Operational Efficiency
IT can assist in increasing the operational efficiency of an organization. With the adoption of technologies such as operations management software, supply chain management software and customer management systems, organizations can automate many tasks and processes, thereby saving time and costs. This helps organizations in increasing their operational efficiency.
- b. Improving the Quality of Products and Services
The use of IT can also improve the quality of the products and services provided by the organization. With technologies such as design software, project management software, and quality management systems, organizations can improve their product designs, improve product delivery effectiveness, and ensure product quality.
- c. Increasing Organizational Responsiveness
The use of IT can help organizations become more responsive to changing market and customer needs. With technologies such as data analytics, organizations can monitor market trends and customer behavior, thereby adjusting their business strategy in a timely manner.
- d. Improving Financial Performance
The use of IT can also help organizations improve their financial performance. With technologies such as financial management software, organizations can monitor and control their expenses, thereby reducing production costs and increasing profitability.

As in the implementation from PT. Arifindo Adiputra Ariaguna, Information Technology assists business processes in a number of ways in the field of Human Resources including:

Employee self-service

Good HR management plays an important role and greatly determines the results of a company organization. It can be said that employee performance appraisal is seen from the company's work achievements. Information system is a complex tool that manages the distribution of data. There is type of information system. One of which is management information System. A management information system consists of a number of connected elements. This component is responsible for collecting data, obtaining data, processing data, storing, and distributing data and information. That's

why information systems play an important role in the facilities of a company. Information systems enable workers to work effectively and efficiently. The success of this information system depends on how optimally a company implements it.

Quality of employee performance

With stable and fast data collection and management, employee performance is better. At least, the results of the work according to the standards. In this case PT. Arifindo Adiputra Ariaguna knows the progress of the project and sales through information systems without human *error*. With the existence of an information system, standard quality will be clearly reflected on technological equipment (eg computers), so that employee work results are better. In addition, collecting the data needed to do something is easy. You don't have to wait longer for co-workers or superiors, because the data has been presented in the information system.

Generated quantity

The existence of an information system is tantamount to summarizing time and work to be more efficient and effective. If the use of information systems in a company is maximized, everything can even be done as quickly as possible. So that at the same time, the production of goods is more than companies without information systems. This is because the collection of data and information has been organized and assisted in its distribution by an information system. So that employees work faster.

Save Time

To produce a product, in an information system-based company it will be faster than one that is not. This is because the process of making goods is assisted by the information system itself. Maybe not all of the manufacturing staff take advantage of technological sophistication, but the required data has been properly disseminated by the information system. So there is no waiting word waiting to get some data because everything has been stored and can be accessed in the information system.

Save cost

Installing an information system initially requires sophisticated and quite complex equipment. In addition, the costs spent were quite high. However, the effect of this expenditure makes the results of the work more effective. More production and shorter time make the company have more profits. In addition, employee working hours are also shorter. Because in a short time, the results of the work of more employees. That way, companies no longer need to pay overtime.

Increased Work Accuracy

How can the work accuracy of employees be increased? Maximum information systems include quality checks as well. Therefore if something is wrong, the information system will immediately provide *info* that the work of an employee needs to be improved. This is what sometimes escapes human work, thoroughness. Information systems present data stably, unlike humans who sometimes make mistakes. So the existence of an information system makes the work of employees more perfect.

Improve Discipline

The character that has improved in terms of employees is discipline. If the information system has covered everything in the company, like it or not, employees must adapt to this development. For example about absences. If attendance has used fingerprints, then an employee's delay will be easily detected. That's why discipline will

definitely increase slowly. No employee wants to be reprimanded for being late by their boss, right?

Adding Honesty

All employee data is presented in an information system within the company. HRIS, Trello and CRM. This prevents employees from being dishonest. Employee data in the form of background, family, and environmental data becomes a separate analysis by the company where they work. This is sometimes related to benefits such as child support, wife, transport, and so on. with data valid inputted into the information system, superiors will know the true background of each employee.

Conceptual Framework

The conceptual framework for this article is created based on the problem formulation, discussion, and pertinent research, as illustrated in Figure 1 below.

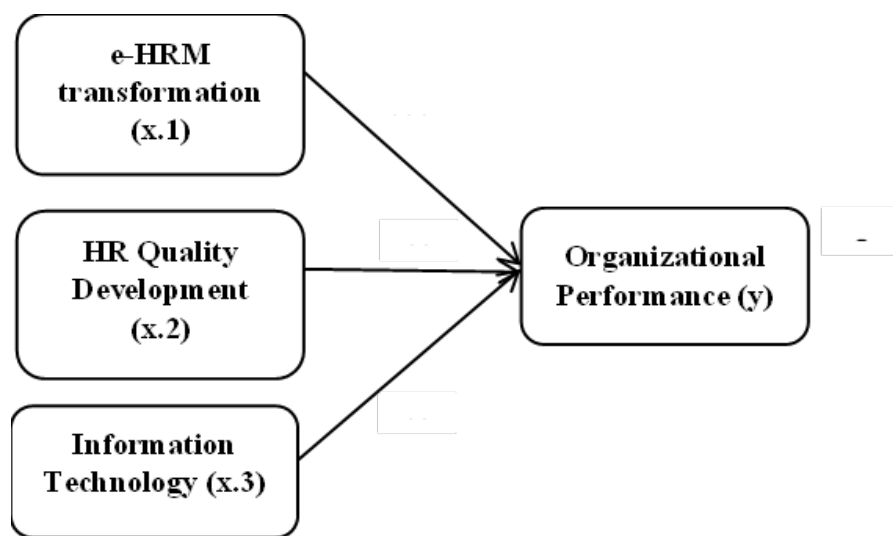


Figure 1: Conceptual Framework

According to the conceptual framework depicted above, information technology, HR quality development, and e-HRM all impact organizational performance. In addition to these three exogenous factors, there are numerous more factors that affect information system performance, such as:

- a. System: (Ali et al., 2016), (Shobirin & Hapzi Ali, 2019), (Saputra & Ali, 2022), and (Sari & Ali, 2019).
- b. Software:(Indarsin & Ali, 2017),(Ali & Sardjijo, 2017),(Octavia & Ali, 2017) And (Djojo & Ali, 2012).
- c. Information Technology:(Ashshidiqy & Ali, 2019),(Maisharoh & Ali, 2020), (Chauhan et al., 2019), And(Prayetno & Ali, 2017).

CONCLUSION

A research hypothesis can be developed based on the problem formulation and debate, specifically:

- 1. e-HRM influences Organizational Performance.
- 2. HR Quality Development affects Organizational Performance.
- 3. Information Technology affects Organizational Performance.

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