

# *Information Technology On Human Resource Practices From Public Service Organizations In West Sumatra*

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**Abstract** – Information technology (IT) is an essential tool in public service organizations to improve the competitiveness of human resources in West Sumatra. Information technology has a significant effect on improving the services of an organization. This study focuses on how current information technology impacts the effectiveness and efficiency of public service organizations in increasing the competitiveness of human resources (HR). In practice, human resource management generally uses IT in the form of a human resource information system for decision-making in the field of HR. The main objective of this study is to examine the impact of IT on public service organizations in West Sumatra to improve the competitiveness of human resources. The sample in the study was 150 employees, purposively used as a sample and a descriptive survey methodology was used. Data were collected using a questionnaire consisting of open-ended questions. The results reveal that the existence of public service organizations in West Sumatra related to human resources such as applications such as recruitment applications, attendance, reward, and work systems are software that produces extraordinary benefits in increasing the competitiveness of human resources in public service organizations in West Sumatra.

**Keywords** – human resources, information technology, Public Service

## I. INTRODUCTION

The application of information technology in public service organizations can provide great opportunities for regional development, especially in West Sumatra. Information technology (IT) in most developing countries such as Indonesia, especially West Sumatra can improve regional development. Affirmed as the main driver of technological innovation and organizational evaluation [1] (Liang et al, 2010), IT has changed the organization from a traditional way to a modern form by using computer hardware and software, databases, internet, and telecommunications equipment to manage information. Currently, important for organizations or companies to integrate information technology in public service operations[2] (Loebbecke and Wareham, 2003; [3]Febriani,201) as a reliable tool to obtain effectiveness and efficiency in human resource management [4] (Obeidat, 2012;[5]

Public service organizations need to organize IT systems so that internal performance and public services are optimal. It is a unified whole and is interconnected in one process on the system.

Public service organizations are required to provide effective services to the community through IT innovation. Managers in today's public service organizations must understand that IT is more than just computers, it includes business information that is created and widely used. Information technology is used to store, protect, process data, receive, recruit and manage human resources and retrieve information as defined by [5] Baughn et al (2004). The goal is to achieve administratively, and operational efficiencies as well as a gain competitive advantage and sustainable growth [6] (Beulen (2009). Collectively, the development of global trade has been driven by IT networks that can reduce transaction costs and enable companies to compete globally. In terms of, In this case, IT serves as a utility for the company's business processes as well as an increasingly competitive advantage [7] (Tapscott, 2005).

Human resource management consists of recruitment, selection, maintenance, development and utilization, and accommodation of human resources by the organization. Of course, human resource management has become more strategic and focused on its operations. In the past, the HR function within the organization, as well as handling and managing employee data was a difficult task. However, the advent of computers and the use of IT, has simplified the task of analyzing large amounts of data and can become an invaluable utility in HR management, from processing, and presentation to record keeping, HR planning, program development, employee communication, and strategic decision making [8] (Mathis and Jackson, 2003; [9] Slavic). The need for public service organizations for effective and efficient services encourages the local government of West Sumatra to provide effective services in order to realize excellent service.

Today's modern organization, to achieve organizational success is highly dependent on the performance of human resources, to achieve increased efficiency and reduce full dependence on management intuition in running the organization, the need for optimal IT. To improve HR services, reduce operational costs and turn HR into a customer-focused function it is necessary to adopt IT or e-Human Resources. Thus, many organizations are using the advantages of technology to reduce costs, speed up task processing, minimize the cost of repetitive administrative tasks and become more customer-oriented [10] (Bhuiyan et al., 2014; [11] Chung, 2015)

Information technology investment can cost an organization millions of rupiah. The organization hopes that this investment can increase the output and productivity of the organization. Organizations are increasingly recognizing the importance of storing, processing, and retrieving information as well as the support of technology tools to effectively carry out HR functions efficiently. Therefore, the purpose of this study is to answer the 1. Types of information technology that can be applied to improve HR practices, 2. What benefits can be obtained from implementing IT to improve HR.

Implementing aspects of human resource management consisting of HR planning, job analysis, recruitment, selection, orientation, compensation, performance appraisal, training and development, work relations, planning, health and safety, legal issues, retention, and work-life balance [12] ( Dessler, 2007) that organizations tend to derive enormous value and benefit from HR practice policies that are designed appropriately in accordance with the company's business strategy. In addition, the HR function in the organization is positively correlated with the company's performance and operational output or organizational success [13] ( Mina et al. 2012). During the last few decades, one of the main driving factors in achieving superior organizational performance is by managing HR.

## **II. RESEARCH METHODS**

This research is a descriptive study that explains the phenomena, situations, and conditions that occur. The time of study was carried out from April to September 2021. The data was collected through questionnaires that were distributed to 70 people who work in the public service department. The self-designed questionnaire consists of open and closed questions to collect data. Data analysis is done simply using SPSS to make it easier to define variables, enter data and produce outputs and reports.

## **III. RESULTS AND DISCUSSION**

### **3.1. Organizational Infrastructure Investment**

Information technology is an infrastructure investment in organizations [14] (Lefley, 2013). This implies that investment in information technology related to HR is part of the organization's infrastructure investment

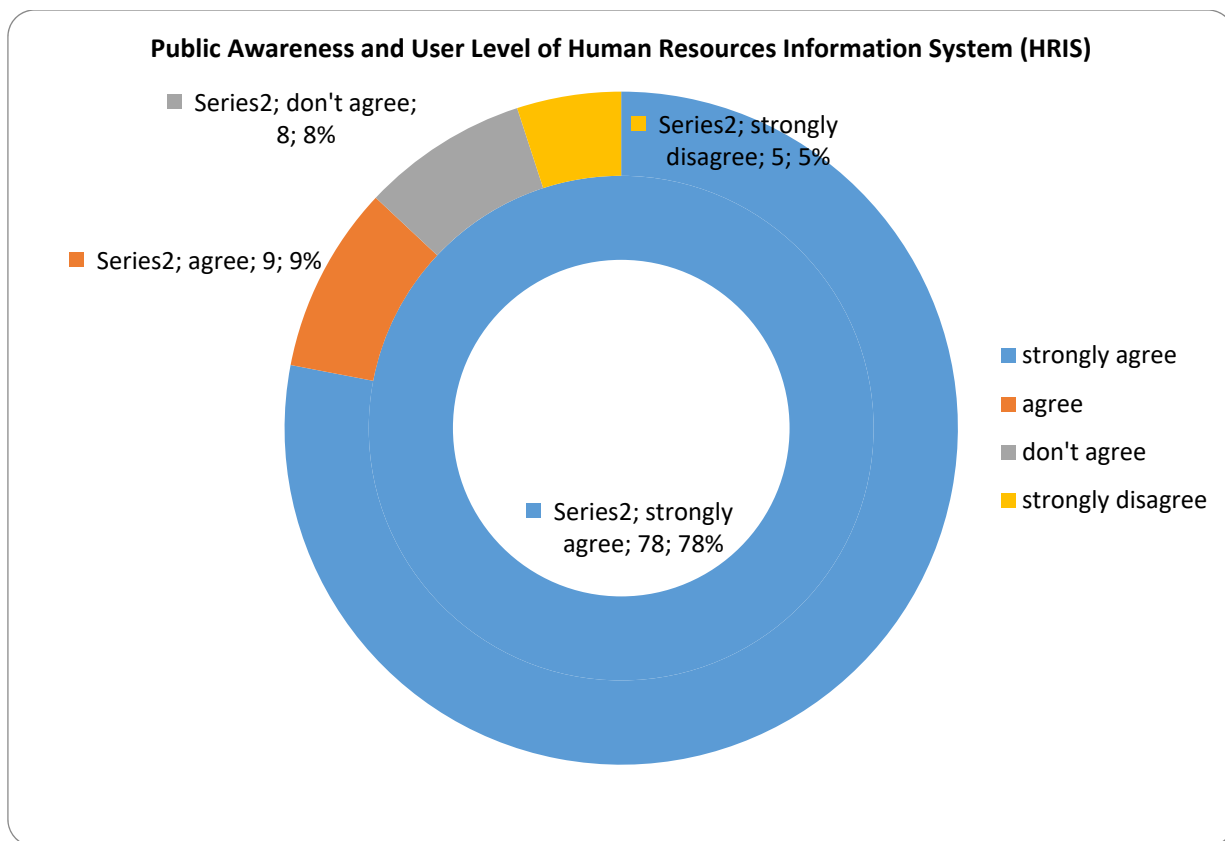


Figure 1. Public Awareness and Usage Rate Human Resources Information System (HRIS) in West Sumatra

From the results of the study in Figure 1. it can be seen that respondents consisting of employees of the Regional Revenue Agency of West Sumatra and people who use human resource information system services in West Sumatra strongly agree (78%) that the existence of HRIS can make it easier to provide information to the public regarding the services provided. , improve organizational performance, and have a positive impact. In addition to providing a positive impact, it also increases the effectiveness and efficiency of the organization, improves service conditions, and streamlines HR activities.

Organizations in general are very aware of various HR software that is needed by the organization. Organizations that focus on HR development are particularly relevant to using HRIS for their internal HR operations, such as recruitment, training, planning management, and compensation management. By optimizing the vast majority of HR practices through HRIS and IT tools, organizations believe they can gain cost savings by performing HR tasks more effectively and efficiently.

Public service organizations in West Sumatra need to plan for IT investment because IT investment related to HR is organizational infrastructure investment. While in HR practice, the organization invests in providing HR training on the use of this HR software. Organizations recognize the need to improve user skills to get the most out of IT investment in HR practices.

### 3.2. Impact of IT on HR practices

Information technology and human resource management interact with each other and will bring changes to organizations in designing work.

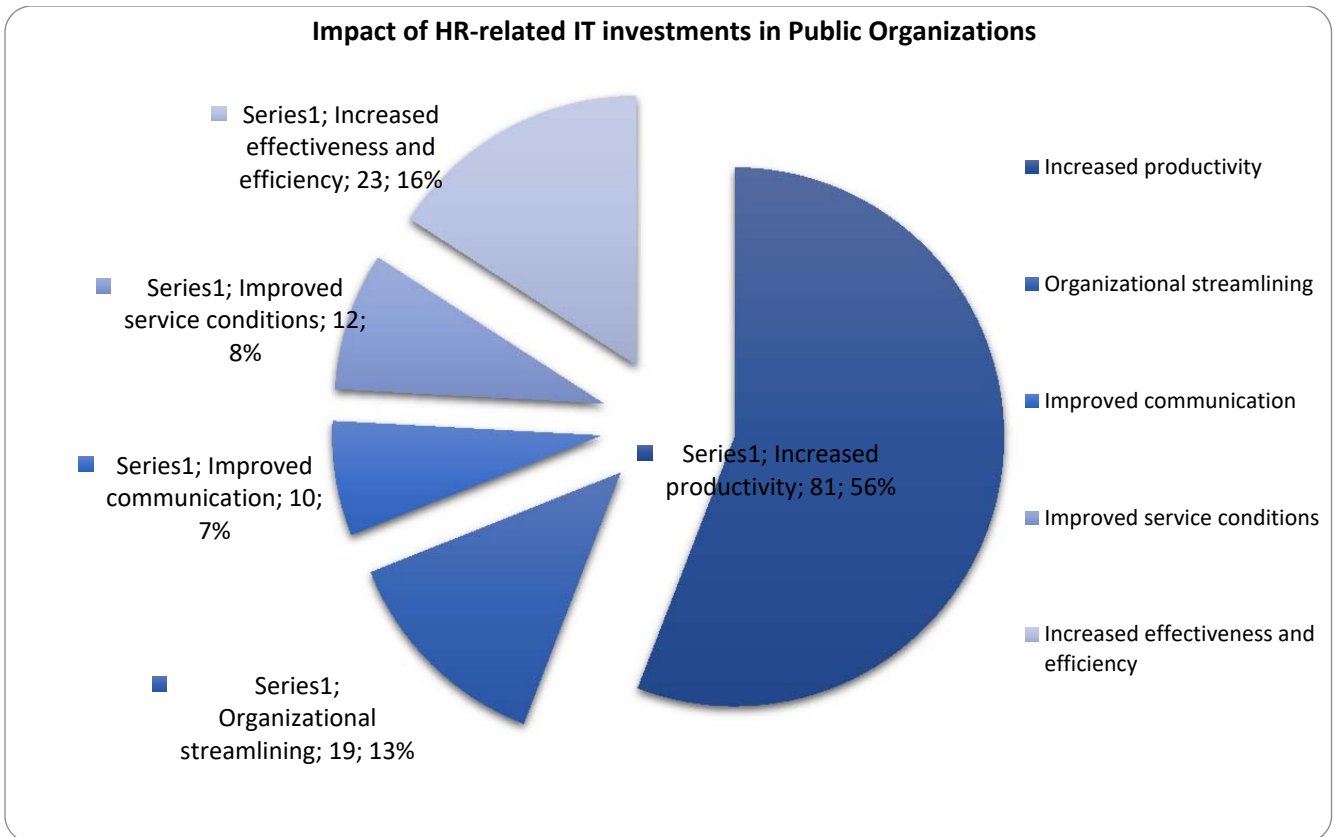


Figure 2. Investment in IT Related to HR in Organizations

IT investment, the results of the study (see Figure 2) show the various impacts of IT investments related to HR on public organizations in West Sumatra. Of these, the majority showed an increase in work productivity 56% for organizations investing in IT, and 16.0% an increase in effectiveness and efficiency. Other things that are affected by IT investment are organizational downsizing (13.0%), service improvement (8%), and increased communication with the community. The findings also show that public service organizations in West Sumatra show that public service organizations use IT in HR practices only to replace manual processes, create new processes, and reduce costs to the organization.

In the future, public service organizations in West Sumatra must plan investments, in addition to increasing work productivity, as well as evaluating the entire organization on the use of IT in serving the public. However, with IT investment, the organization must provide sufficient costs to purchase and prepare the software and prepare competent human resources in using the software.

Organizations are therefore encouraged to provide necessary and adequate training for employees to effectively use IT-based HR systems. Public service organizations in West Sumatra must also plan properly and determine the goals needed to improve the quality of human resources in order to prioritize their investments. The organization recognizes the need for the development of existing internal organizational software and reduces dependence on others to obtain adequate IT for the organization. Furthermore, organizations recognize the need to improve HR skills in order to get optimal benefits from investing in HR information technology systems.

#### IV. CONCLUSION

From the results of the study, we conclude that public service organizations are very aware of the importance of IT or human resource information technology systems available to organizations, to be used in HR management practices. Public service organizations find the benefits of using IT for HR practices, and investment in IT is more focused on developing skills for employees or the workforce to meet the needs of the software. This HR software can help the HR function to be cheaper and the

organization's fixed costs more efficient. Several organizations in West Sumatra have started to switch to the use of HR information technology systems, especially public service organizations.

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#### **VII. CONFLICT OF INTEREST**

The authors declare that there is no conflict of interest

#### **REFERENCES**

- [1] [Liang, TP, You, JJ L CC. Resource-based perspective on information technology and firm performance: a meta-analysis, *Industrial Management and Data Systems*. August 2010. 2010;110(8):1138-1158.
- [2] Wareham, J L C. The Impact of e Business and the information society on strategy and strategic planning: an assesment of new concepts and challenges. *Information Technology and Managemen*. 2003;4(2-3):165-185.
- [3] Febriani. Impacts of Information Tecnology on employee Performance During the Covid-19, *Indian Journal of Applied Research (IJAR)*. 2021;11(11):2.
- [4] Obeidat, BY. The relationship between human resource information system (HRIS) functions and human resource management (HRM) functionalities. *Journal of Management Research*. 2012;4(4):193.
- [5] Ward, K. And Buchanan, M.A B CC. Linking human resource management practices and organizational strategy: a cross-national study. *Journal of Transnational Management Development*. 2004;10(1):99-121.
- [6] Beulen, E. The contributio of a global service provider's human resources information system ( HRIS) to staff retention in emerging maekets: comparing issues and implications in six developing countries. *Information, Technology and People*. 2009;22(3):270-288.
- [7] Tapscott, D. *Growing Up Dgital: The Rise of the Net Generation*, McGraw-Hill Tecnology. 2005
- [8] [8] Mathis, R.L J JH. *Human Resource Management*. 10th ed. South- Western/Thomson, Ohio
- [9] The Role of information systems in human resource management, *International Symposium Engineering Management and Competitiveness*.
- [10] Farzana, F B F, Mustafa, MC. Historical evaluation of humanresource information system (HRIS); an interface between HR and computer technology. *Human Resource management Research*. 2014;4(4):75-80.
- [11] Chung, R. Role of Human Resource Information Systems in an Educational Organization,. 2015;2(2):149-153.
- [12] Dessler, G. *Human Resource Management*. 11th ed. Prentice-Hall; 2007.
- [13] Mina, B M K And Yaser, G. Researching the impact of human resources functions on organizational performance using structural equations method (case research: Iran Behnoush Company). *Interdisciplinary journal of Contemporary Research in Business*. 2012;3(9):721-730.
- [14] Lefley F. The appraisal of ICT and non-ICT capital projects: a study of the current practices of large UK organizations. *nternational Journal of Managing Projects in Business*., 2013;6(3):505-533.