



## The Role of Human Resource Management in the Organization

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<http://dx.doi.org/10.47814/ijssrr.v6i12.1791>

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### **Abstract**

Human resources have an important position in every organization because to achieve maximum organizational performance it is necessary to utilize the resources it has, including human resources. The research aims to determine the role of human resource management in organizations. This research method uses a literature review (library research). The research results show that human resource management is managing human resources available within the organization; Human resource management has three functions, namely the managerial function, operational function, and the function of achieving organizational goals in an integrated manner; The main goal of human resource management is to increase the contribution of human resources (employees) to the organization.

**Keywords:** *Human Resources Management; Organization*

### **Introduction**

The most important thing to achieve a maximum goal is to start from the thing that most supports the achievement of that goal, namely human resources (HR). Therefore, it is necessary to manage or develop human resources to create productive people. With good human resource development or management, an employee can easily face and complete task demands both now and in the future.

As time goes by, it will be difficult for an employee to obtain achievements and skills if he only relies on what he has without ever carrying out a training or development process, so human resource development is very influential in the effectiveness and efficiency of an organization.

HR management is the science and art of managing the relationships and roles of the workforce so that they are effective and efficient in helping to realize the goals of the company, employees, and society [1]. Human resource management is a process of handling/overcoming various problems that exist within the scope of employees, employees, workers, managers, and other workers to be able to support the activities of an organization or company to achieve predetermined goals [2]. Therefore, managers

must ensure that a company or organization has the right workforce in the right place, and at the right time, who can complete tasks that will help the company achieve its overall facilities effectively and efficiently.

Every human resource management activity requires thought and understanding of what will work well and what won't. In an environment where workforce challenges continue to change, laws change, and the needs of employers also change, human resource management must continue to change and develop. The underlying concept is that every employee is a human, not a machine, and not merely a business resource. The study of HR management combines several fields of science such as psychology, sociology, and others. Human resource management also concerns the design and implementation of the digestive system, employee management, employee development, career management, performance evaluation, employee compensation, and good employment relations. Human resource management involves all management decisions and practices that directly affect human resources. Human resource management is needed to increase the effectiveness of human resources in the organization. The goal is to provide the organization with an effective work unit.

To achieve this goal, the study of personnel management will show how companies should obtain, develop, use, evaluate, and maintain employees in the right number (quantity) and type (quality). Human resource management discusses the great potential of human labor which is the driving force for factors supporting management activities which must be utilized as best as possible through synergy with the environment. It cannot be denied that rapid technological changes force organizations to adapt to their business environment.

The research aims to determine the role of human resource management in organizations.

### ***Research Methods***

This research method uses a literature review (library research), the steps for a literature review include creating a bibliography, reading and making research notes/sources of data obtained, and managing research materials that have been obtained.

### ***Basic Theoretical Framework***

#### **1. Understanding Human Resources Management**

##### **1.1. Understanding Management**

Management comes from the English language management with the verb to manage, interpreted generally as taking care of. Furthermore, the definition of management developed more completely. Lauren A. Aply, as quoted by Tanthowi, translates management as "The art of getting done through people" or the art of completing work through other people [3].

Management is the science and art of managing the process of utilizing human resources and other resources effectively and efficiently to achieve a certain goal [4].

Management is often interpreted as science, tips, and profession. It is said to be a science by Luther Gulick because management is seen as a field of knowledge that systematically seeks to understand why and how people work together to achieve goals and make this system of cooperation more beneficial for humanity.

On the other hand, Mary Parker Follett explains that management can also be seen as the art of carrying out work through other people (The art of getting done through people). This definition means that a manager, in achieving organizational goals, involves other people to carry out various tasks that have been carried out. arranged by the manager. Therefore, the skills possessed by a manager need to be developed both through assessment and training. Because management is seen as an art, a manager needs to know and master the art of leading which is closely related to the right leadership style and can be applied in various situations and conditions.

Apart from seeing management as a science and art, management can also be said to be a profession because management is based on special skills to achieve managerial achievements which are bound by a code of ethics and are required to work professionally. According to Robert L. Katz, a professional must have abilities, social (human relations), and technical. Conceptual ability is the ability to perceive an organization as a system, understand changes in each part that affect the entire organization, the ability to coordinate all activities and interests of the organization. Social skills or human relations are demonstrated so that managers can work together lead their groups and understand members as individuals and groups. Technical ability is closely related to the ability that managers have to use tools, procedures, and techniques in specific fields, such as techniques in planning budget programs, educational programs, and so on.

After reviewing the various definitions of management put forward by the experts above, it can be concluded that management is a person's activity in managing an organization, institution, or school, both human and non-human, so that the goals of the organization, institution or school can be achieved effectively and efficiently [3].

## 1.2 Definition of Human Resources

Human Resources (HR) are very important and must be possessed to achieve organizational or company goals. Human resources are the main element of an organization compared to other resource elements such as capital and technology, because humans themselves control other factors. According to [5] said that human resources are one of the most important factors in a company, as seen from other factors besides business capital. Therefore, HR is very necessary to be managed well so that the effectiveness and efficiency of the company increases.

According to [4] human resources means integrated expertise that comes from the thinking power and physical strength possessed by each person. Those who do it and the nature of what they do still have a close relationship, such as their descendants and their environment, while their work performance is motivated by a desire to fulfill their desires. Furthermore, it was stated by [6] that human resources have two different meanings, including HR is a work effort or service that is provided to carry out the production process or in other words, human resources is the quality of the business carried out by someone within a certain period to produce services or goods, and HR is where humans can work to produce services or goods from their work efforts. Being able to work means being able to carry out various activities that have economic value, or in other words, these activities can produce goods and services to meet life's needs.

Human resources (HR) are a very important factor that cannot be separated from an organization, whether institutional or company. HR is also the key that determines a company's development. In essence, human resources are humans who are employed in an organization as movers, thinkers, and planners to achieve the organization's goals.

Broadly speaking, the definition of human resources is individuals who work as drivers of an organization, both institutions and companies, and function as assets whose abilities must be trained and developed.

### **1.3 Understanding Human Resource Management**

Human resource management is the development and utilization of personnel (employees) for the effective achievement of individual, organizational, community, national, and international goals and objectives [8]. Human resource management can be defined as a process and effort to recruit, develop, motivate, and evaluate all human resources needed by a company to achieve its goals [9].

Human resource management is defined as planning, organizing, mobilizing, and supervising the procurement, development, compensation, integration, maintenance, and termination of employment relations to achieve the company's organizational goals in an integrated manner [10].

### **1.4 Human Resource Management Functions**

According to [11], human resource functions consist of:

#### **a. Staffing/Employment**

This function consists of three important activities, namely planning, attracting, and selecting human resources. Managers are responsible for anticipating human resource needs. As companies grow, managers become more dependent on human resources departments to gather information about the composition and skills of the current workforce.

Although the recruitment of workers is carried out entirely by the human resources department, other departments are still involved by providing descriptions of job specifications to assist the withdrawal process. In the selection process, the human resources department carries out screening through interviews, tests, and investigating the applicant's background. The responsibility of the human resources department for procuring labor is increasing with the existence of laws regarding equal employment opportunities and various conditions required by companies.

#### **b. Performance Evaluation**

Human resources performance assessment is the responsibility of the human resources department and managers. Managers bear the primary responsibility for evaluating their subordinates and the human resources department is responsible for developing effective performance appraisal forms and ensuring that such performance appraisals are carried out by all parts of the company.

The human resources department also needs to train managers on how to set good performance standards and make accurate performance appraisals.

#### **c. Compensation**

In terms of compensation/rewards, good coordination is needed between the human resources department and managers. Managers are responsible for salary increases, while the human resources department is responsible for developing a good salary structure. A compensation system that requires a balance between payment and benefits provided to the workforce.

Payment includes salaries, bonuses, incentives, and profit sharing received by employees. Benefits include health insurance, life insurance, leave, and so on. The human resources department is responsible for ensuring that the compensation provided is competitive among similar companies, fair, and appropriate. with applicable laws (for example: UMR), and provide motivation.

#### **d. Training and Development**

The human resources department is responsible for helping managers become good coaches and advisors to their subordinates, creating effective training and development programs for both new (orientation) and existing employees (skills development), engaging in such training and development programs, estimating the company's need for training and development programs, and evaluating the effectiveness of training and development programs.

The responsibility of the human resources department in this case also concerns the issue of termination of employment. This responsibility helps restructure the company and provide solutions to conflicts that occur within the company.

#### **e. Employee Relations**

In companies that have unions, the human resources department plays an active role in negotiating and dealing with agreement issues with the union. Helping companies deal with unions is the responsibility of the human resources department. Once the agreement is agreed upon, the human resources department helps managers how to handle the agreement and avoid more complaints. The main responsibility of the human resources department is to avoid unhealthy practices (for example: strikes, and demonstrations).

In companies that do not have unions, the human resources department is required to be involved in employee relations. In general, employees do not join a union if their wages are adequate and they believe that the company is responsible for their needs. The human resources department in this case needs to ensure that employees are treated well and that there is a good and clear way to deal with complaints. Every company, whether it has a labor union or not, needs a firm way to increase discipline and resolve complaints to resolve problems and protect the workforce.

#### **f. Safety and Health**

Every company is obliged to have and implement a safety program to reduce unwanted incidents and create healthy conditions. Workers need to be reminded continuously about the importance of work safety. An effective work safety program can reduce the number of accidents and improve the health of workers in general. The human resources department has the primary responsibility for providing training on work safety, identifying and correcting conditions that endanger workers, and reporting work accidents.

#### **g. Personnel Research**

In its efforts to increase company effectiveness, the human resources department analyzes individual and company problems and makes appropriate changes. Problems that are often paid attention to by the human resources department are the causes of employee absenteeism and tardiness, what good withdrawal and selection procedures are, and the causes of workforce dissatisfaction.

The human resources department is responsible for collecting and analyzing information that pertains to these issues. The results are used to assess whether existing policies need to be changed or not.

### **1.5 Scope of Human Resources Management**

According to [2] the scope of HR management includes:

1. Human Resources Planning. Relating to the preparation of human resources required in an organization or company;

2. Job Analysis. Techniques for carrying out analysis and providing a complete description of the workload or job description for an organization or company;
3. Recruitment and Selection. If you have finished carrying out the job analysis, the company will then open job vacancies to carry out the process of searching for new employees;
4. Orientation and Induction. After passing the selection stage, induction and introduction activities will be carried out. At this stage, information about the company's background will be provided. Then it explains what work ethics are like, as well as getting to know other employees;
5. Training and Development. All employees will carry out training activities for guidance so they can work optimally. This activity will be carried out by some staff who have experience. Because old employees need to be able to remember the HRM training material they have previously received;
6. Performance Appraisal. Often, if an employee has worked for 1 year, a performance assessment will be carried out by the HR department;
7. Compensation Planning and Remuneration. Another responsibility of the HR department is to decide on regulations regarding compensation and benefits for employees;
8. Motivation, Welfare, Health, and Safety. The HR department is expected to be able to motivate each employee so that they can work well. in comfortable working conditions. Apart from motivation, work safety and health insurance are also very fundamental things that can motivate all employees, so that they can work well, in a conducive work atmosphere; And
9. Industrial Relations. Always maintain good relations between employees, managers, leaders, and all people involved in the company or organization. Because it has a big impact on the smooth running of the work.

## **1.6 Human Resource Management Objectives**

The main goal of human resource management is to optimize the potential and contribution of employees in achieving organizational goals effectively and efficiently. HR management involves various practices and activities designed to manage aspects related to employees in an organization. Some of the main objectives of HR management include: (1) Recruitment and Selection, (2) Employee Development, (3) Employee Motivation and Retention, (4) Performance Appraisal, (5) Conflict Management, (6) Pay and Rewards, (7) Career Planning, and (8) employee welfare [12].

## **1.7 Human Resource Management Process**

Human resource management processes are all processes related to efforts carried out from human resource planning, recruitment, signing work contracts, and placement of workers, to training and development of workers to place and maintain workers in certain positions and qualifications as well as responsible by the requirements given to the workforce.

According to [13] in general, the HR management process is divided into five main function sections consisting of (1) Human Resource Planning, (2) Personnel Procurement, (3) Personnel Development, (4) Personnel Maintenance, and (5) Personnel Utilization

### **1. Human Resource Planning (Human Resource Planning)**

Human resource planning is strategic planning to obtain and maintain the qualifications of human resources needed for a company organization to achieve company goals. At least, there are several strategic steps related to human resource planning, including:

- a. First step: Representation and reflection of the company's strategic plan HR planning should be a representation and reflection of the company's overall strategic plan. This means that the human resource qualifications that will be formulated should meet the criteria as required in the company's overall strategic planning, and be integrated with other parts of the company.
- b. Second step: Analysis of the qualifications for the tasks that will be carried out by the workforce. This step is an effort to understand the work qualifications needed to achieve the company's strategic plan.
- c. Third step: Analysis of labor availability. This step is an estimate of the number of workers and their qualifications that exist and are needed for the company's planning in the future. Included in this step is how many workers need to be promoted, transferred, etc., based on an evaluation of the company's activities in the previous period and the company's plans for the next period, the company analyzes whether the availability of workers owned by the company is sufficient to meet the requirements. whether the company's needs in the future are sufficient or not.
- d. Fourth step: Take initiative action. Analysis of the availability of labor in the company and its needs in the future.
- e. Fifth step: Evaluate and modify actions. Management is continuous. Therefore, what has been planned in human resource management must also always be evaluated and corrective action taken if there are discrepancies or changes occur along with existing developments in the company.

### **2. Provision of Human Resources (Personal Procurement)**

The availability of human resources according to certain qualifications is a logical consequence and implication of the existence of human resource planning, so the next step in its implementation is the provision of human resources through the process of recruitment, selection, and placement of workers. Recruitment is an effort to obtain the required workforce according to the qualifications of workforce planning. Selection is an effort to obtain workers who meet the qualification requirements. Placement is the process of selecting jobs that are by the required qualifications and placing them in the tasks that have been applied.

### **3. Human Resource Development (Personnel Development)**

Human resource development is a continuation step of the workforce supply process which aims to ensure and maintain the available workforce continues to meet the required qualifications so that it is in line with the company's strategic planning and the company's goals can be achieved as planned.

For new workers, this development program is usually accommodated through a company orientation program where in this program workers are introduced to the company's work environment both internally and externally. This also includes introducing other workers so that teamwork processes can be formed from the start. Banking companies are among the companies that always carry out orientation training programs before their workers are designated as permanent workers or not.

For existing workers, efforts to maintain productivity, effectiveness, and efficiency need to continue to be made to ensure that the qualifications of the workforce are maintained by the company's strategic planning. Therefore, development programs for existing workers also need to be carried out.

In general, workforce development programs can be divided into two, namely on the job and off the job. The on-the-job method can take the form of activities, such as:

1. Coaching, namely a program in the form of guidance given by superiors to subordinates regarding various matters related to work.
2. Planned progression, namely a program in the form of transferring workers to other parts through different organizational levels.
3. Job rotation, namely a program to transfer workers to different departments and different tasks, so that the workforce is more dynamic and not monotonous.
4. Temporary tasks, namely in the form of assigning tasks to an activity project or certain position for a certain period.
5. Achievement assessment or performance appraisal program.

The off-the-job methods that can be used include:

- a. Executive development program, which is a program for sending managers or workers to participate in various special programs outside the company related to case analysis, simulations, and other learning methods.
- b. Laboratory training, which is in the form of a program aimed at workers to take part in programs in the form of simulations of the real world related to company activities where the methods usually used are role-playing, simulations, etc.
- c. Organizational development, namely a program aimed at workers by inviting them to think about how to advance their company.

Internal recruitment is the process of obtaining the required workforce or human resources by taking into account the existing workforce or those already owned by the company, such as job rotation.

External recruitment is the process of recruiting a company from outside the company which is often called outsourcing. This effort can be done through advertisements in the mass media, interviews on campuses, or through certain employment agencies.

Employee selection is the next step that the company must take after the company determines the type of recruitment that will be carried out.

- a. Administrative Selection, the process of validating and verifying all administrative requirements required of prospective workers who will be placed in a particular position.
- b. Qualification Selection, the company selects prospective workers in terms of their qualifications regarding the suitability of the prospective workforce with the position they will occupy, and is usually carried out with two selections, namely written and unwritten selection.
- c. Attitude and Behavior Selection, prospective workers are tested in terms of their attitudes and behavior as individuals related to motivation, hopes, and vision.
- d. Workforce Placement, with different workforce placement programs, workforce tendencies, and qualifications will be more visible to the company.

#### **4. Personnel Maintenance**

If the workforce has been selected from the best sources, and then given the best program, the company can hope that the workforce it has selected will provide the best performance for the company. If the workforce has provided the best performance for the company, the next process is workforce maintenance. This is very important to ensure that the company's workforce maintains its productivity, effectiveness, and efficiency.

Companies need to understand that workers have different motives, therefore fulfilling each worker's motives is one of the things that must be done by the company in addition to requiring the company to show the best performance for the company. In general, the form of workforce maintenance that can be carried out by companies is in the form of compensation and benefit programs.

Compensation is an award given by the company in return for the work performance provided by the workforce. Benefits are awards other than compensation that are programmed for workers to ensure that workforce needs can be maintained so that workers can continue to provide performance or similar things that are the best for the company.

#### a. Compensation

Compensation is generally related to rewards in the form of money or the like which are often referred to as incentives. The program that needs to be carried out by the company related to providing compensation is the level of wages or income (wage-levels), namely how much income will be given to the workforce by the work carried out, as well as the salary structure (wage-structure), namely the wage levels that will be given to the company.

#### b. Benefits

Benefits are appreciation and a form of company attention other than compensation given or provided by the company as an effort to maintain the workforce so that they can continue to provide the best performance for the company while also responding to the needs of the workforce. Benefits can include paid leave, health, and work accident insurance, and free polyclinics for workers' families.

### **5. Utilization of Human Resources (Personnel Utilization)**

The final step of the human resource management process is workforce utilization. This step is an effort to maintain the workforce so that it is always in line with the company's strategic plan. Companies usually carry out several programs to ensure their workforce is always in line with the company's strategic planning. Among these programs are promotions, demotions, transfers, or separation.

Promotion is the process of moving workers to structurally higher positions in the company organization. Demotion is a decrease in the workforce at a lower level of work which is usually caused by a decrease in the quality of the workforce in their work. The transfer is an effort to move workers to another section. It is hoped that these workers will be more productive after undergoing the transfer process. Separation is a company's effort to transfer a certain work environment from one worker to another environment [9].

### ***Discussion***

Human resources are potential which are assets and function as capital (non-material/non-financial) in an organization, which can be realized into the real physical and non-physical potential in realizing the existence of the organization [14]. The importance of human resource management can be highlighted from various perspectives. [8] and [15] highlight the relevance and importance of human resource management from six perspectives, namely political, economic, socio-cultural, legal, administrative, and technological perspectives.

#### **1. Political Perspective**

The importance of resource management in this perspective is more directed at the macro angle, that human resources are an important asset owned by an organization starting from the macro level

(country), even internationally, to the micro level. Human resources who are educated, skilled, capable, disciplined, diligent, creative, idealistic, willing to work hard, physically/mentally strong, and loyal to the ideals and goals of the organization, will have a very positive influence on the success and progress of the organization. So human resources play a central and most determining role. Without reliable resource management, the processing, use, and utilization of other resources will be ineffective, inefficient, and unproductive.

## **2. Economic Perspective**

From an economic perspective, people often assume that understanding resource management is for nothing other than economic interests alone. This assumption is justified by the fact that humans are often seen as one of the factors of production to produce goods and services by economic units. Humans cannot simply be equated with machines, equipment, capital, methods, and markets. Things like this are actions that deny the reality that humans are dynamic creatures, full of love, feeling, and intention.

So people are the center of everything for an organization. Humans can become the center of organizational problems if their potential is not developed and not increased. On the other hand, humans are the center of all organizational success when all their resources are developed naturally and convincingly.

## **3. Legal Perspective**

In organizations, there are various regulations, provisions, or agreements, all of which regulate reciprocal rights and obligations between the organization and its members, between the person who employs and the person who is employed. Maintaining this balance requires clarity regarding the rights and obligations of each party in the organization. All of this can become clear and can be realized only through an appropriate management system. Resource management that is managed appropriately and regularly is the most relevant alternative.

## **4. Socio-Cultural Perspective**

There are two main reasons underlying this perspective, namely: First, this side is more sensitive because it is directly related to human dignity. The opportunity to work is an effort to increase one's honor and dignity. Dignity and honor cannot be measured by material things but also non-physical, where work is not only to fulfill physical needs but also to realize socio-psychological needs; Second, it is emphasized that it is difficult to obtain a value-free resource management system. Fulfilling socio-psychological needs depends on the social norms that apply in the society of which the person is a part. These values will determine what is good or bad, fair or not, and at the same time become a barometer for someone's assessment.

## **5. Administrative Perspective**

This perspective emphasizes that the role of organizations in this modern era is becoming increasingly important. Modern humans are now more familiar with the term organizational human. Without an organization, without the help of other people, they will not be able to make their dreams come true. Dependence on other people is what drives humans to organize. This indicates that progress or decline in human life depends on the ability to organize and utilize the resources available in the organization. Herein lies the relevance and importance of resource management.

## **6. Technology Perspective**

The relevance and importance of resource management cannot be separated from sharing the developments and progress achieved in the field of science and technology. Humans are expected to be

able to adapt to these various developments. For this reason, humans need to be equipped with appropriate abilities, abilities, and skills. This can only be achieved through an appropriate human resource management system. (Faustino, 2003: 15).

### ***Conclusions and Recommendations***

#### **Conclusion**

1. So in simple terms, human resource management is managing human resources. Of all the resources available in an organization, human resources are the most crucial. All the potential possessed by human resources greatly influences the organization's efforts to achieve its goals.
2. Human resource management has three functions, namely the managerial function, the operational function, and the function of achieving organizational goals in an integrated manner. Meanwhile, the duties of human resource management are procuring staff, developing human resources, managing compensation, managing occupational safety and health, and managing employee relations and industrial relations.
3. The main objective of human resource management is to increase the contribution of human resources (employees) to the organization. It can be understood that all organizational activities in achieving their goals depend on the people who manage the organization. Therefore, employees must be managed well so that they can help the organization in achieving predetermined organizational goals. To achieve the objectives of human resource management is carried out by HR managers, line managers, and outsourcing.

#### ***Suggestion***

Human resources determine the success or failure of a particular organization or institution. So institutions must pay attention to HR performance or improve the HR selection or HR recruitment process.

#### ***References***

- [1] Hasibuan, H. M. 2019. Human Resource Management. Bumi Literacy, Jakarta.
- [2] Halsal, D, Hawignyo, and D. Supriyadi. 2022. The Role of Human Resource Management in Organizations. Journal of Management and Science 7 (2): 663-667.
- [3] Sulistyorini. R. 2009. Management of Islamic Education. Teras Publishers, Yogyakarta.
- [4] Hasibuan, H. M. 2008. Basic Management, Understanding and Problems. Bumi Literacy, Jakarta.
- [5] Hariandja, M.T.E. 2002. Human Resource Management. Grasindo, Jakarta.
- [6] Sumarsono, S. 2003. Economics of Human Resource Management and. Employment. Graha Ilmu, Yogyakarta.
- [7] Nawawi, H. 2003. Human Resources Planning. Gajah Mada University Press, Yogyakarta.
- [8] Faustino, Cardoso. 2003. Human resource management. Andi Offset, Yogyakarta.

- [9] Sule, Ernie Tisnawati, Kurniawan Saefullah. 2005. Introduction to Management Edition 1. Kencana Prenada Media, Jakarta.
- [10] Husein, U. 2001. Strategic Management in Action. Gramedia Pustaka Utama, Jakarta.
- [11] Cherrington, D. J. 1995. The Management of Human Resources. 4th edition. Prentice Hall Inc., New Jersey.
- [12] Dwi, A. 2021. HR Management: Definition, Objectives and Functions. Faculty of Economics and Business UMSU Medan.
- [13] Abdullah. H. 2017. The Role of HR Management in Organizations. Journal News Edition: 51 January 2017 | ISSN: 1829 – 7463.
- [14] Haikal, A. 2017. Human Resource Management Functions to Increase the Effectiveness of HR Performance on BSI TV. Journal of Communication 8 (3): 249-255.
- [15] Siagian P. Sondang. 2007. MPA: Human resource management. PT. Bumi Literacy, Jakarta.

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