# Digitalization of Employee Performance Appraisal System: Ensuring Fairness and Transparency in Human Resource (HR) Practices in a Steel Construction Company

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*Abstract* - Digital transformation in the human resource department (HRD) within performance appraisal process is initiated by employee management and supported by the commitment of leaders to create aspects of openness and fairness. In this context, PT X is a steel construction company that still carries out employee performance appraisal process manually, causing problems such as being considered unfair, lack of transparency, inaccurate assessment process, and frequent delays in the process. This causes feelings of unfairness and suspicion from employees, leading to a negative work atmosphere and impacting productivity and performance. Therefore, this research aimed to design an employee performance appraisal information system by applying the Waterfall model as the development method. The novelty was the integration of human resources (HR) transformation from traditional to digital, by prioritizing the principles of fairness and transparency in the context of employee performance appraisal. This result shows that web-based performance appraisal information system effectively managed the appraisal process digitally, enabling leaders to monitor employee performance and improve efficiency. The existence of a system prioritizes transparency and fairness because the assessment process is carried out in two directions, from leaders to employees. Therefore, employee welfare and job satisfaction are improved through effective and objective assessment.

*Keywords:* information system, performance appraisal, web applications

## I. INTRODUCTION

Strong company performance improves competitive advantage and increases the likelihood of outperforming competitors in the market. Performance and increase in competitiveness are influenced by the availability of high- quality HR factors. This can be supported by reliable, relevant, accurate, timely, and complete data to optimize decision-making process as part of the management strategy (Raja et al., 2025). Even though the daily operations of a company have been supported by modern technology, the human workforce factor to produce optimal performance cannot be ignored. The form of optimal HR performance is the assessment of behavior, achievements, and quality of work. Employee performance evaluation is essential to enhance a sense of responsibility, ensure adherence to work standards and legal regulations, and promote the delivery of quality outputs (Utama, 2021). The appraisal is a standard of assessment used to determine the quality of employees' performanc. This complicated process requires serious consideration

to produce the right decision (Habibi & Manurung, 2023).

According to Sutrisno in Khaeruman et al. (2023), employee performance can be measured based on several indicators. (1) Quality factor reflects the degree to which the outcomes of implemented activities attain perfection or fulfill the intended objectives. (2) Quantity is a measure of the amount of value generated, such as the value of currency in the form of rupiah, units, or cycles of activities. (3) Timeliness is a measure of the progress of completed activities in relation to the conformity and accuracy with the predetermined schedule. (4) Cost effectiveness is the utilization and use of resources in economic value for the implementation of maximum activities in achieving high results or reducing losses. (5) Need for supervision is an assessment of employee understanding and independence in conducting job functions without continuous direction and supervision. (6) Interpersonal impact is employees' assessment in maintaining self-esteem, reputation, and ability to work with others. Garengo et al. (2022) state that cultural routine factors and work behavior were used to determine the use of performance measurement.

Career development and performance appraisal are two important aspects of HR management. Performance appraisal refers to the evaluation of employee to determine the extent to which assigned goals and tasks in the workplace have been accomplished. The variables measured are employee achievement, competence, and behavior. These dimensions provide constructive feedback to employees, identifies areas of improvement, and plans the actions needed to enhance performance (Nurramadhania, 2023).

The relationship between organizational performance and the use of information technology, such as Human Resources Information System (HRIS), shows that the mastery of information technology is an absolute requirement for a company. Several companies use HR Information Systems to enhance the effectiveness and efficiency of operational activities. An information system can be interpreted as a process or activity to inventory the conditions and circumstances of HR. Therefore, the company can determine the quantity and quality of problems faced in making management policies related to aspects of HR. Information system is a methodical process for gathering, accessing, storing, and updating the required data (Rosadi & Purnomo, 2020).

The implementation of HR information system has a major impact on influencing administrative tasks. This role can develop into a strategic partner that contributes to the company's overall success by increasing efficiency, productivity, and employee satisfaction (Bindra et al., 2025). There are challenges, such as changes in the organizational climate and culture. These aspects can be overcome to achieve successful HR management transformation (Saputri et al., 2024). The challenges in implementing HR

information systems include adapting the technology to the local context, particularly with respect to employment regulations and workplace cultures. Additional barriers arise from organizational unpreparedness to adopt new technologies, as well as from restrictive local regulations, employee behavior, communication gaps, inflexible policies, and technologies that are not easily understood by non-specialists (Wartono, 2025).

The considered problem is the performance appraisal process at PT X. Based on interviews with management, employee performance appraisals can only be conducted by management. This situation leads to prejudice and negative feelings because performance appraisals are perceived as subjectivity, which gives rise to suspicion and feelings of unfairness towards department and company leaders. The feelings of suspicion and unfairness led to dissatisfaction, affecting employee performance. The performance appraisal process is conducted through Excel forms and is prone to human error. Also, the process is not conducted regularly, which affects the ability to provide objective evaluations. In this context, objective performance appraisals are highly valued by companies in influencing adjustments to existing compensation components.

Digital transformation is a major trend in the modern business environment, requiring industries to enhance internal and external business processes. The adoption requires organizations to implement new technologies and change their working structure and culture. Changes in work culture through digital transformation strengthened the values of collaboration and openness, facilitating a more effective innovation process (Fahmi, 2024). Digital transformation drives changes in HR aspect to create a more open, collaborative, and adaptive work culture. This variable enhances employee's autonomous and dynamic roles by fostering greater openness.

The research problems align with the theory of HR policies. Effective HR management policies consist of several key elements, such as proper selection and recruitment, training and development, fair and competitive compensation, clear promotion and career policies, regular and performance evaluations, and organizational culture (Idrus et al., 2023). Rosadi and Purnomo (2020) state that employee performance evaluation contains information about employee skills, competencies, talents, performance levels, and growth potential. Correct and precise information is needed to make long-term planning decisions about potential individuals.

A website-based information system is designed and created to assist PT X in evaluating and assessing the performance of employees. This system has a feature in which the performance assessment process is carried out by the leader and employees within the same organizational line. Another feature is a reminder notification that helps system users in conducting assessments promptly. The results can be seen directly in reducing suspicion and subjectivity. The

performance assessment process on the website also helps HRD improve the efficiency of data collection and the recording of compensation bonuses.

The novelty lies in the integration of HR transformation from traditional to digital, prioritizing the principles of fairness and transparency in the context of employee performance appraisals. This research emphasizes the systematic integration of fairness and transparency into the design of the system. Practical insights and a replicable framework are offered for similar industries in ensuring objective performance management through the use of information system.

## II. METHODS

The software development for designing the application is the waterfall method (Faradita et al., 2024). The classic life cycle model used a systematic and sequential method to develop software (Musthofa & Adiguna, 2022). Figure 1 shows the phases in waterfall method (Supiyandi et al., 2022).
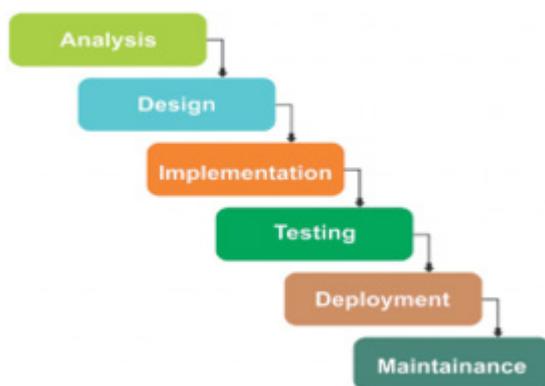


Figure 1 Phases in Waterfall Model

The phases of the waterfall method are used in the implementation and an development of employee performance appraisal information system. The method has six phases. First, during analysis phase, the research team conduct interviews with company managers regarding the need for an information system capable of handling performance appraisals. User needs are determined using an interview with leaders and HRD. PT X has five departments, namely marketing, production, accounting and finance, general affairs, and the institute strategic department. In related to user needs interviews, results are obtained in the form of data and information on personnel administration, features, and modules of the information system to be developed. Developers collect data on assessment policies and criteria, salary and compensation structures, absence records, employee participation level in projects and tasks, and performance evaluation procedures, rules, and methods.

Second, in design phase, the core activity is identifying user needs, which includes architectural design, Unified Modeling Language (UML)-based analysis and modeling, user interface design, and specifying the technical requirements of the software. This phase also includes designing an assessment website interface for calculating scores and designing report formats, such as assessment reports. Third, implementation is the phase of writing the program code. The main module focuses on designing an employee performance assessment application with functions that meet the company's needs. The developed system comprises core modules, including employee data input and performance indicator module, an assessment accessible to HR, supervisors, and other evaluators. During the implementation phase, the website is developed using Hypertext Markup Language (HTML) and Hypertext Pre-Processor (PHP) scripting languages through MySQL.

Fourth, in the testing phase, the designed application and user needs are evaluated. The process is conducted using usability methods on users, namely management, HRD representatives, and employees. Testing determines bugs or errors after the application is implemented. Fifth, the deployment phase is the final phase, where the finished product or program is made available to clients or end-users. The phase includes providing training for all user access, inputting performance assessment criteria data into the system, and simulating the implementation of the process. This includes creating user manuals and organizing training sessions for company staff. The sixth phase is the maintenance phase. The activities comprise system maintenance, such as error correction, improving the implementation of units to meet new needs, and planning for future application development.

This performance management system integrates with payroll to help companies decide salary increases and incentive bonuses for high-performing employees. The salary adjustment and incentive award process is based on a comprehensive performance evaluation.

Table 1 Employee Performance Assessment Standards

| Total Point | Predicate | Description |
|---|---|---|
| 80 - 100 | A | Very Good |
| 60 - 79 | B | Good |
| 40 - 59 | C | Fair |
| 20 – 39 | D | Poor |
| 0 – 19 | E | Very Bad |

Source: Company Primary Data

Table 1 shows the employee performance assessment standards used at PT X, including the total point, predicate category, and description of the assessment results. The individual receives a warning indicating that performance over the past

month has been unsatisfactory and must be improved immediately to meet the minimum fair performance rating when employee scores below 40 points. For scores above 40, the company provides a reward in the following month, which is included in the monthly salary component. Adjustments are made each month based on the monthly performance evaluation.

The system design depends on interviews regarding user needs in the design of information system using UML, including use case diagrams, class diagrams, activity diagrams, and sequence diagrams. A use case diagram describes the interaction relationship between the system and the actor (Fajerin & Mulyono, 2020). This shows system modeling through user-system interactions (Musthofa & Adiguna, 2022). The design of the use case diagram in this application is as follows.

Based on the use case diagram, there are three actors in this system, namely the company leader, HR admin, and company employees. The features of adding performance assessment categories can be done through access rights as company leaders and HR department admins. Employees are restricted from entering assessment inputs, viewing monthly performance rankings, and accessing evaluation results.

A database scheme is adopted in information system through a class diagram including attributes, names, relationships, and connections. This provides a clear and better overview of the application scheme

(Kusuma, 2023). The following is a description of employee performance assessment information system.

The class diagram is the prototype of employee performance assessment system. Figure 3 shows that the employee class is connected to the assessment results as a control in the employee performance assessment system. The integration is also connected to the assessment indicators, weights, and classes.

Activities related to business processes are depicted as data flow or control concepts, and structured actions using activity diagrams. These describe the design of data flow concepts, control, and structured actions in a system (Pasaribu et al., 2024). Activity diagrams are depicted in a structured manner following the work process shown by the use case. Each activity can be described with notations according to the function (Kadim et al., 2022).

Figure 4 shows activity diagram modeling that explains the assessment input process. The flow begins when an employee selects the monthly assessment and carries out the process for other employees by filling out the form determined by HRD. After completing the assessment, the assessor can save the results to be processed into a report.

The diagram in the business process design explains the interaction of each object in information system. A sequence diagram is used to understand the interaction of the system with the user. This diagram also explains the behavior and interaction between
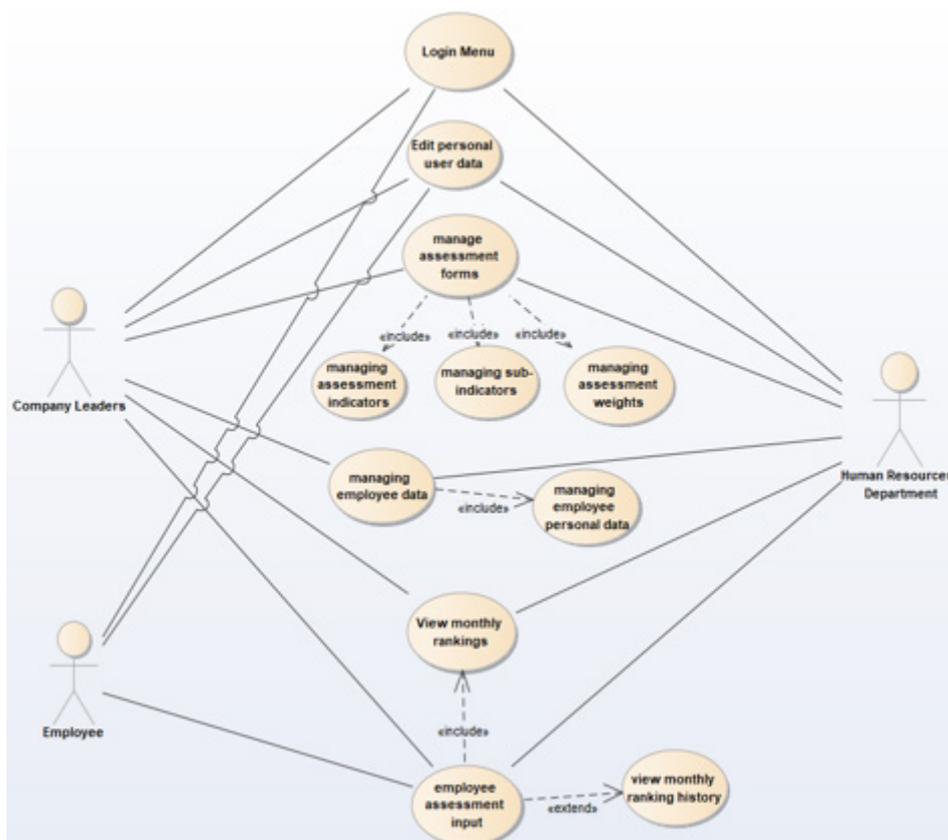


Figure 2 Use Case Diagram of Employee Performance Appraisal System

entities and systems (Priyatna et al., 2022). Figure 5 shows the sequence diagram for the employee assessment process. It shows the interaction between the user and system in the assessment input diagram.

The process includes accessing the menu and selecting the appropriate option to perform a monthly evaluation when a user wants to enter an assessment.
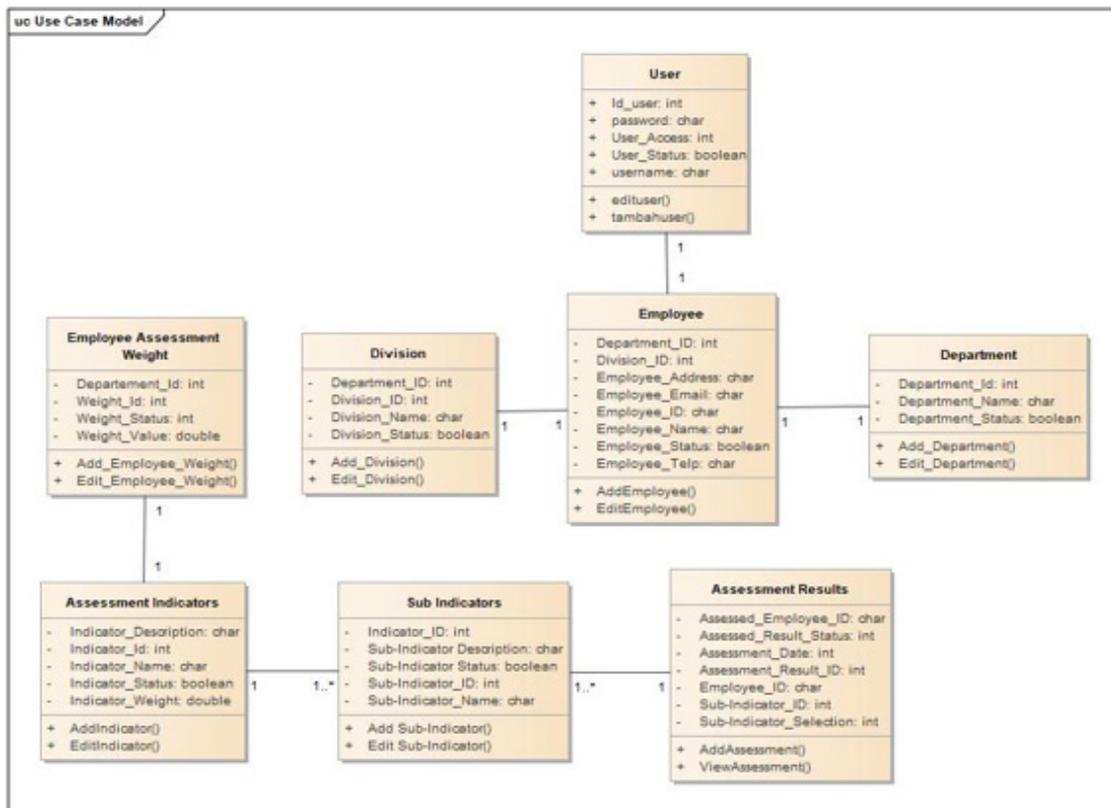


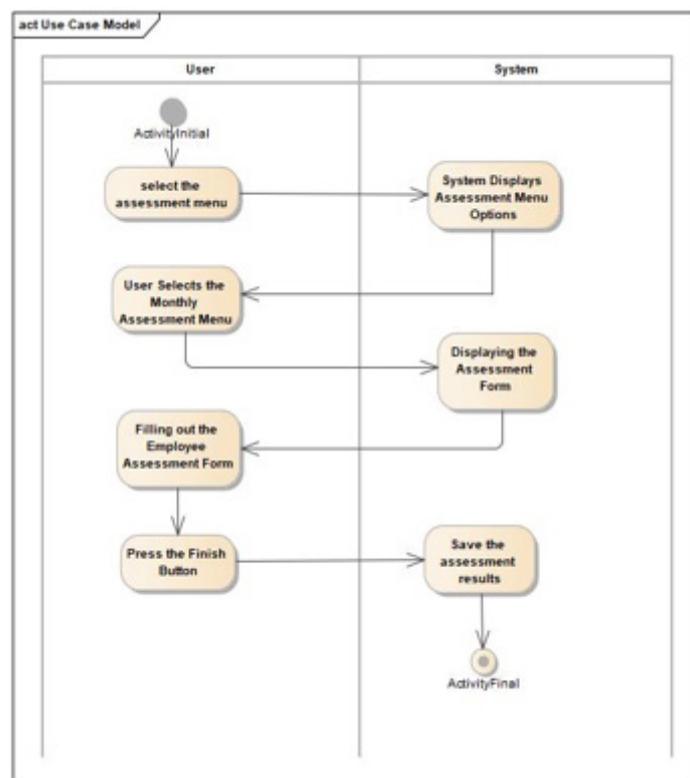Figure 3 Class Diagram of Employee Performance Appraisal System
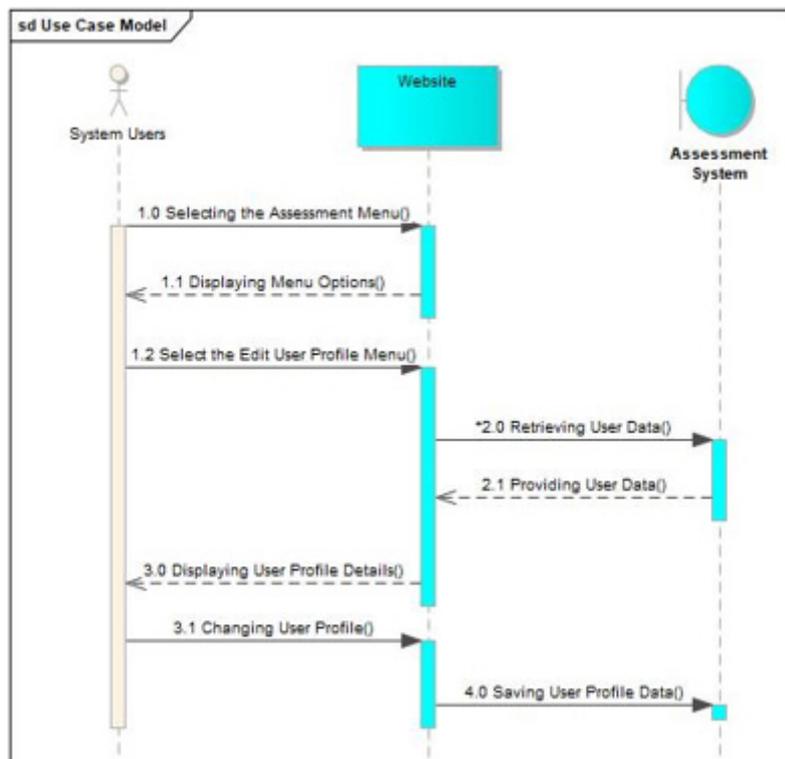


Figure 4 Employee Assessment Input Process Activity Diagram

Figure 5 Employee Assessment Input Process Sequence Diagram

## III. RESULTS AND DISCUSSIONS

The reliability of a business organization in the digital era is related to technology and the aspect of HR. Good HR management affects company performance (Kirana et al., 2023). This is the focus of PT X, which adopts open employee assessments to maintain satisfaction and show creativity, intelligence, ethics, and integrity in consistently supporting the business objectives. The web-based employee performance assessment information system shows the application interface used for user interaction.



Figure 6 Application Login Menu

Figure 6 shows the login form for the assessment system at PT X. This page includea two input fields. A Username field is where users enter their account identity and a Password field is for users input their confidential password.

After logging in, employees can enter the main menu of performance appraisal system. Usernames and passwords are generated by the admin and distributed to employees. The password is changed after a successful login to prevent others from accessing the personal data. Users with the admin role can successfully log into the system and perform employee management tasks, such as adding data through the 'Add Employee' form, as shown in Figure 7.
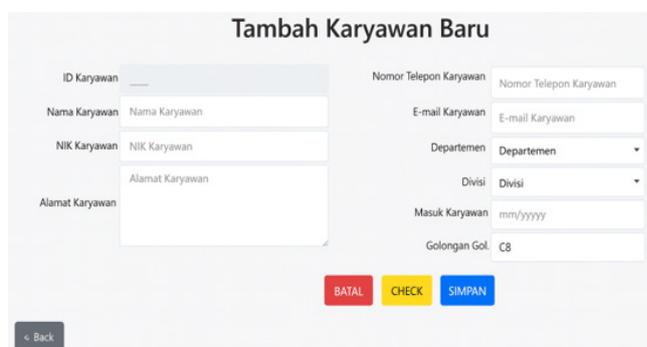


Figure 7 Add Employee Form

Figure 7 shows the interface used by HRD to enter employee data. This form, titled "Tambah Karyawan

Baru" (Add for New Employee), is used to input comprehensive data for a new hire into the company's system, requiring both Personal and Contact Data (including the Employee ID, Name, NIK/National ID Number, Address, Phone Number, and Email Address) and Organizational Details, such as the *Departemen* (Department), *Divisi* (Division), *Masuk Karyawan* (Employee Start Date), and *Golongan Gol* (Group or Grade Level). This form has features for managing employees and adding data, such as updating and deleting inactive employees. Once all data is entered, the user can press *simpan* (save) to submit and record the new employee's profile into the database. The result is a list of active employees assessed using a web-based assessment information system.

Employee performance assessment is conducted for each department. Currently, the company is classified as a medium-sized enterprise since the number of departments is small. However, a website-based performance evaluation method that considers specific tasks, responsibilities, and success indicators has become a leadership commitment. The role of leaders is crucial in implementing this new model in the transition from traditional patterns to digital transformation. Leaders also need to ensure that legacy employee management system can be applied in the new digital environment (Guerra et al., 2023). Since performance is evaluated by department and division, the company admin must register each department in the organization through the following menu.

Figure 8 displays the interface of an Employee Payroll System developed by a company. This specific page, titled *Daftar Divisi* (Division Lists), functions as a management tool for the company's organizational structure. The main feature is a table that lists details for every work unit: the columns show the unique *ID Divisi* (Division ID), *Nama Departemen* (Department Name) to which the division belongs (e.g., Marketing, Production, General), the specific *Nama Divisi* (Division Name) (e.g., Sales, Customer Service), and *Deskripsi Divisi* (Division Description). On the right side of each row, there is an Edit button, allowing the user (likely an HR administrator) to modify existing

division details. Additionally, there is a *Tambah Divisi Baru* (Add New Division) button above the table for creating new work units, and a Print button in the top right corner for printing the list.

The menu display has a feature to create a list and edit the division or department. On this page, users can manage division and department settings, including adding, editing, or deleting departments and employees. The monthly assessment menu is a feature used by direct superiors or designated parties to conduct routine evaluations based on indicators. The output of the process is in the form of (1) Monthly Employee Ranking Report: containing information based on the points obtained at the end of each month, (2) Employee Warning Report: containing information on employees whose points are less than Minimum Completion Criteria (KKM), and (3) Employee Report with the Highest Points: containing information on employees who have the highest points in a particular month.

The system includes a *Penilaian Bulanan* (Performance Assessment tool) to evaluate employees based on defined indicators. Figure 9 lists the indicators and sub-indicators used in this process, covering aspects such as *Akhlak Kerja* (Work Ethics) and *Amanah Kerja* (Work Integrity). The assessment of employees is carried out by leaders and colleagues within the same division, and in the implementation, assessors assign ratings in the form of stars to the sub-indicators of each indicator. Furthermore, this system presents key interfaces for an integrated Employee Payroll and Management System designed for administrative tasks and organizational structure. The platform facilitates onboarding new staff via the *Tambah Karyawan Baru* (Add New Employee) form, which collects comprehensive personal and organizational details, and enables administrators to maintain the organizational hierarchy through the *Daftar Divisi* (Division Lists) screen, where work units can be viewed, edited, or deleted.

Based on the interviews with application developers and company leaders, the main indicators are divided into (1) work ethics indicators, which include



Figure 8 Edit Page and Division Settings View

responsiveness to attendance and job responsibility, and (2) work integrity indicators, such as sub-indicators of work speed, completion, and reliability. The company has a policy for salary categories based on position, length of service, responsibilities, and the competencies of each employee.

This integrated Employee Payroll and Management System utilizes several interfaces to manage staff structure, payment, and performance. The platform allows administrators to onboard new staff via the *Tambah Karyawan Baru* (Add New Employee) form, which collects comprehensive personal and organizational details, and to maintain the organizational hierarchy through *Daftar Divisi* (Division Lists), where work units can be viewed, edited, or deleted. The system's central feature is the salary structure and its link to performance. Figure 10 presents the salary category menu (*Daftar Golongan Gaji*) adjusted based on various factors,

including employee performance assessment results. For example, employees with high results have the opportunity to be promoted to a higher salary group, and the results serve as the basis for policy-making and salary adjustments in accordance with work contributions. This assessment is conducted using the *Penilaian Bulanan* (Monthly Salary) tool, which evaluates employees on criteria such as *Akhlak Kerja* (Work Ethics) and *Amanah Kerja* (Work Integrity). Assessors (leaders and colleagues) assign star ratings to sub-indicators within the system.

The application also includes with Employee Self-Service (ESS) feature, where assessment results are shown in a simple format for ease of understanding. In practice, users can view the monthly rankings through the list generated by the system.

Figure 11 provides an explanation of the system's interface, illustrating how the integrated Employee Payroll and Management System supports



Figure 9 Monthly Assessment View Menu



Figure 10 Edit Employee Salary Category Page

the management of staff structure, payment, and performance. The platform enables administrators to onboard new employees through the *Tambah Karyawan Baru* (Add New Employee) form and to maintain the organizational hierarchy using the *Daftar Divisi* (Division Lists)screen. Its assessment module evaluates employees based on criteria such as *Akhlak Kerja* (Work Ethics) and *Amanah Kerja* (Work Integrity), where assessors assign star ratings to each sub-indicator. In Figure 11, the interface displays a list of employees along with their assessment outcomes, structured as a *Ranking Penilaian Bulanan* (Monthly Assessment Ranking) that shows the employee's name, total point, and final grade (e.g., A, B, C). Employees can view their assessment results directly. However, inputs, suggestions, and criticisms are delivered manually by HR to avoid potential conflicts. These performance results are tied to the compensation structure (see Figure 12), which presents the salary category menu, *Daftar Golongan Gaji* (Salary Grade List). Salary groups are adjusted based on performance, allowing high-performing employees the opportunity to advance to higher compensation tiers.



Figure 11 Recapitulation of Monthly Employee Assessment Rankings

The system is equipped with a reporting feature to ensure transparency, accuracy, and management of employee achievement awards. The implementation of this page is in line with (Al-Athmay et al., 2025), where leaders and employees can carry out HR activities independently to optimize operational processes.



Figure 12 Employee Salary Report Based on Employee Performance

Notes: *Laporan Gaji* (Salary Report), *ID Transaksi* (Transaction ID), *ID Karyawan* (Employee ID), *Nama Karyawan* (Employee Name), *Golongan Gaji* (Salary Grade), *Periode Bulan* (Month), *Periode Tahun* (Year),

*Total Gaji* (Salary Total)

Employee Payroll and Management System use various interfaces to manage staff structure, performance, and compensation. The system's primary output (see Figure 12) is the interface used by HR to print the overall employee salary report, which can be generated for a selected month and year. The report summarizes the final salary calculation, in which the results of adjustments, including bonuses derived from performance, have been added to employee's salary. This menu is also an input for HRD in determining improvements to the salary increase process and considering the applicable budget and policies. Prior to this reporting phase, the system facilitates onboarding new staff via the *Tambah Karyawan Baru* (Add New Employee) form and maintains the organizational hierarchy through the *Daftar Divisi* (List of Divisions) field. The salary structure is directly linked to performance, as the *Daftar Golongan Gaji* (Salary Grade List) is adjusted based on monthly evaluations in which assessors (leaders and colleagues) assign star ratings.

The following explains the results of the system implementation to support the digital transformation of performance assessment management. Digital transformation is essential to improve employee productivity. Based on user interviews, the implementation has increased productivity as employees feel more motivated by the reward system.

The use of technology is the best solution adopted by PT X. The assessment process includes several parties using employee performance applications. At PT X, the process is done by the department leader and fellow employees. This aims to avoid potential problems such as conflicts of interest, bias towards certain employees, and dissatisfaction and distrust.

The final phase involves conducting a trial run on application users through usability testing. A total of 73 individuals are given a questionnaire using the Guttman scale, with 'yes' or 'no' responses. Table 2 shows the questions and the percentage of agree answers. Based on the questionnaire results, the system implemented at PT X has been well received. Many users' responses agree with the implementation and features provided by the employee performance appraisal system.

Table 2 Usability Testing Questionnaire Results

| No | Statement | Percentage of Agree Answers |
|----|-----------|-----------------------------|
| 1 | Is it easy for you to use this system? | 90% |
| 2 | Is there any convenience when you interact with the system? | 89% |
| 3 | Do you think the appearance of this system is good? | 90% |
| 4 | Is the notification function working properly? | 97% |

Table 2 Usability Testing Questionnaire Results (Continued)

| No | Statement | Percentage of Agree Answers |
|---|---|---|
| 5 | Is the user password reset function in email working normally? | 97% |
| 6 | Do you feel the system is capable of guaranteeing the security of your data? | 100% |
| 7 | Is the information displayed on the system easy to understand? | 90% |
| 8 | Is the role of this system very helpful, especially for performance appraisal process? | 97% |
| 9 | Does performance appraisal process make things easier for you? | 97% |
| 10 | Is the data management process running well and accurately? | 97% |
| 11 | Is the information on the website complete? | 93% |
| 12 | Is the app responsive? | 97% |
| 13 | By using this system, does performance appraisal process become more objective? | 97% |
| 14 | By using this system, does performance appraisal process become more transparent? | 97% |

## IV. CONCLUSIONS

In conclusion, the design of the employee performance assessment application aims to transform the digital process into a manual method. The application includes employee profile management, performance appraisal process, assessment indicator determination, result page, salary category, recapitulation, and report printing. The implementation of employee performance information system helps HRD, department leaders, company leaders, and employees to provide objective assessments. This system also assists HRD in managing data, such as adding, editing, and deleting data, understanding employee performance, and preventing subjectivity in the appraisal process.

This research has several limitations. The research scope is limited to one company (PT X), so the results and findings may differ when applied to organizations with different scales and cultures. Additionally, this research focuses on improving organizational culture in the short term, which means the long-term impact on HR performance cannot be assessed. Another limitation is that the system integration does not cover all business lines within the organization.

Suggestions for future research include developing the Agile/Scrum methodology to provide greater flexibility in responding to changing needs,

engaging users intensively, and improving quality and user satisfaction. Furthermore, this research can be further developed and expanded by involving other companies from various sectors to examine the differences in needs, challenges, and acceptance of digital transformation in the employee performance appraisal process, as well as adding automated recommendation features such as performance prediction, non-objective assessment detection, and data-pattern-based employee competency development recommendations.

## REFERENCES

Al-Athmay, A. A. A., Fantazy, K., & Abdul Rahim, R. A. A. (2025). The adoption of Human Resource Information System (HRIS) and employees engagement: Evidence from United Arab Emirates. *Journal of the Academy of Business and Emerging Markets, 5*(1), 3-14.

Bindra, S., Bhattacharya, S., & Bhattacharya, S. (2025). Traditional to digital: Human resource management transformation. *Journal of Work-Applied Management*. https://doi.org/10.1108/JWAM-02-2025-0019

Fahmi, T. (2024). Transformasi Digital dan pengaruhnya terhadap budaya organisasi: Tinjauan literatur sistematis. *Jurnal Manajemen Akuntansi Dan Ilmu Ekonomi, 1*(2), 101-109. https://doi.org/10.70585/jumali.v1i2.46

Fajerin, T., & Mulyono, H. (2020). Analisis dan perancangan sistem informasi layanan publik berbasis web pada dinas kependudukan dan pencatatan sipil Kabupaten Tanjung Jabung Barat. *Jurnal Manajemen Sistem Informasi, 5*(3), 406-417.

Faradita, N. A., Hamidah, W., & Armansyah, A. (2024). Desain sistem pengadaan barang inventaris dengan pendekatan SDLC dan Waterfall. *Jurnal Penelitian*

*Sistem Informasi (JPSI), 2*(2), 39-50. https://doi.org/10.54066/jpsi.v2i2.1791

Garengo, P., Sardi, A., & Nudurupati, S. S. (2022). Human resource management (HRM) in the performance measurement and management (PMM) domain: A bibliometric review. *International Journal of Productivity and Performance Management, 71*(7), 3056-3077. https://doi.org/10.1108/IJPPM-04-2020-0177

Guerra, J. M. M., Danvila-del-Valle, I., & Méndez-Suárez, M (2023). The impact of digital transformation on talent management. *Technological Forecasting and Social Change, 188*. https://doi.org/10.1016/j.techfore.2022.122291

Habibi, R., & Manurung, A. G. R. (2023). SLR systematic literature review: Metode penilaian kinerja karyawan menggunakan human performance technology. *Journal of Applied Computer Science and Technology, 4*(2), 100-107. https://doi.org/10.52158/jacost.v4i2.511

Idrus, S., Ruhana, F., Amalia, M. R., Rosyid, A. F., & Kuswandi, D. (2023). Implementasi kebijakan manajemen sumber daya manusia yang efektif dalam meningkatkan kinerja organisasi di era bisnis global. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (MEA), 7*(1), 72-89. https://doi.org/10.31955/mea.v7i1.2879

Kadim, A. A., Sutriana, I. K., & Masir, I. H. (2022). Perancangan sistem aplikasi layanan kelurahan berbasis web. *Jambura Journal of Informatics, 4*(1), 38-48. https://doi.org/10.37905/jji.v4i1.13206

Khaeruman, Suflani, Mukhlis, A., & Romli, O. (2023). Analisis efektivitas strategi penilaian kinerja dalam meningkatkan produktivitas karyawan di Indomaret kota Serang. *Jurnal Manajemen STIE Muhammadiyah Palopo, 9*(2), 352. https://doi.org/10.35906/jurman.v9i2.1903

Kirana, A. Y., Saifudin, M., Mukhlisin, M. M., Fatmawati, N., & Ansori, M. I. (2023). Transformasi digital terhadap sumber daya manusia sebagai upaya meningkatkan kapabilitas perusahaan. *Digital Bisnis: Jurnal Publikasi Ilmu Manajemen Dan E-Commerce, 2*(4), 19-36. https://doi.org/10.30640/digital.v2i4.1707

Kusuma, H. (2023). Perancangan website penjualan suku cadang motor pada bengkel D'LIGHTS Batang Tarang. *Prosiding Corisindo 2023*, 401-405.

Musthofa, N., & Adiguna, M. A. (2022). Perancangan aplikasi e-commerce spare-part komputer berbasis web menggunakan CodeIgniter pada Dhamar Putra Computer Kota Tangerang. *OKTAL: Jurnal Ilmu Komputer Dan Sains, 1*(3), 199-207.

Nurramadhania, A. (2023). Pengelolaan sumber daya manusia (SDM) yang efektif untuk meningkatkan kinerja organisasi. *Ulil Albab: Jurnal Ilmiah Multidisiplin, 3*(1), 83-89.

Pasaribu, N. T., Masrizal, & Harahap, S. Z. (2024). Rancang bangun sistem informasi anime premium dan non premium berbasis web dengan menggunakan metode Waterfall. *INFORMATIKA: Jurnal Ilmiah Fakultas Sains & Teknologi Universitas Labuhanbatu, 12*(1), 105-117.

Priyatna, A., Susanto, I., & Sevtiana, A. (2022). Perancangan knowledge management system berbasis web untuk meningkatkan kinerja karyawan menggunakan metode Rapid Application Development (RAD) (Studi Kasus : PT. Citra Kreasi Makmur). *Jurnal Digit: Digital of Information Technology, 12*(2), 214-244. https://doi.org/10.51920/jd.v12i2.297

Raja, M., Swamy, T. N. V. R. L., Das, S., Bansal, R., Fahlevi, M., & Aziz, A. L. (2025). Does a human resource information system influence performance management? *Cogent Business and Management, 12*(1). https://doi.org/10.1080/23311975.2024.2438862

Rosadi, A. A. S., & Purnomo, Y. J. (2020). Pengaruh sistem informasi sumber daya manusia terhadap kinerja pada pegawai PT Raudah Utama Cianjur. *Jurnal Sains Sosio Humaniora, 4*(2), 357-367. https://doi.org/10.22437/jssh.v4i2.10865

Saputri, L. A., Maulana, M. I., Istiqomah, N. K., & Ratnawati, I. (2024). Tantangan dan strategi manajemen sumber daya manusia di era transformasi digital: Studi literatur. *Manajemen Business Innovation Conference-MBIC, 7*(1), 902-919.

Supiyandi, S., Zen, M., Rizal, C., & Eka, M. (2022). Perancangan sistem informasi Desa Tomuan Holbung menggunakan metode Waterfall. *JURIKOM (Jurnal Riset Komputer), 9*(2), 274-280. https://doi.org/10.30865/jurikom.v9i2.3986

Utama, S. T. (2021). Pengaruh disiplin kerja dan pengembangan karir sumber daya manusia terhadap kinerja dan prestasi perusahaan. *JMPIS: Jurnal Manajemen Pendidikan Dan Ilmu Sosial, 2*(1), 281-287.

Wartono, T. (2025). Analisis implementasi sistem informasi sumber daya manusia (SISDM) dalam meningkatkan efisiensi proses rekrutmen dan seleksi di perusahaan multinasional. *Jurnal Review Pendidikan Dan Pengajaran, 8*(1), 1158-1164. https://doi.org/10.31004/jrpp.v8i1.41434