



SWOT Analysis of e-HRM Implementation at PT Kaze Digital Indonesia

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Abstract

Electronic Human Resource Management (e-HRM) has become a strategic approach to support the digital transformation of human resource practices in organizations. This study analyzes the implementation of Waktoo, an internally developed e-HRM system at PT Kaze Digital Indonesia, through a qualitative case study. Data were collected using semi-structured interviews, observations, and documentation, and analyzed using Miles and Huberman's interactive model, supported by manual coding and triangulation to ensure credibility. The SWOT analysis revealed several strengths, including face-detection-based attendance integrated with payroll and a user-friendly interface, while weaknesses included technical bugs, limited use of non-core features, and the absence of training modules. Opportunities include AI integration, HRIS market expansion, and the rising demand for digital HR solutions, whereas threats arise from established commercial HRIS providers, diverse user requirements, and system reliability issues. Based on these findings, strategic recommendations are formulated to optimize Waktoo's development and competitiveness, such as adding HR development features, enhancing system stability, and strengthening customization capabilities. The study contributes theoretically by integrating SWOT with qualitative insights in evaluating e-HRM adoption and practically by providing strategies for improving the relevance and sustainability of in-house HR digitalization initiatives.

Keywords: *e-HRM, SWOT Analysis, Qualitative Case Study, Digital HR, Strategy Development*

INTRODUCTION

The Digital Transformation of Human Resource Management (HRM) has become critical for organizations across industries, particularly for technology-based companies. Electronic Human Resource Management (e-HRM) refers to the use of information and communication technologies to digitalize HR functions such as attendance, payroll, recruitment, and employee administration. The adoption of e-HRM not only improves administrative efficiency but also enhances transparency and responsiveness in HR practices. In Indonesia, the trend toward HR digitalization has accelerated after the COVID-19 pandemic, as organizations of various scales, including startups, shifted toward online systems for attendance tracking, leave applications, and payroll integration.

PT. Kaze Digital Indonesia, a Bandung-based technology company, has responded to this transformation by developing Waktoo, an in-house e-HRM platform launched in 2018. Waktoo features include face recognition-based digital attendance, geolocation tracking, online leave management, payroll integration, and an employee dashboard. While the system supports the company's operational needs, preliminary observations indicate challenges such as technical bugs, underutilized non-core features, and limited integration for training and development. These dynamics highlight the need for a systematic evaluation of Waktoo's implementation to identify its strengths and weaknesses, as well as external opportunities and threats that shape its sustainability.

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To address this need, the present study employs SWOT analysis within a qualitative case study design. SWOT is widely used to assess internal and external factors influencing organizational strategies, yet limited studies have applied this framework to evaluate e-HRM implementation in local technology companies in Indonesia. By mapping the internal and external conditions of Waktoo, this study aims to provide evidence-based strategies for strengthening its relevance in the competitive HRIS landscape. The following research questions are posed to guide this investigation:

1. How is the e-HRM system Waktoo implemented at PT Kazee Digital Indonesia?
2. What are the strengths, weaknesses, opportunities, and threats (SWOT) in the implementation of Waktoo?
3. What strategies can be formulated through SWOT analysis to optimize Waktoo's effectiveness and sustainability?

LITERATURE REVIEW

Electronic Human Resource Management (e-HRM) represents the digitalization of HR functions through the use of information and communication technologies. It covers processes such as recruitment, selection, payroll, performance management, and employee administration. Recent studies emphasize that e-HRM enhances efficiency and transparency, while also demanding organizational readiness and cultural adaptation to technology (Guemuesay, Reinecke, & Townley, 2023; Situmorang & Mishel, 2024; Riesnandar et al., 2025). In Indonesia, the adoption of e-HRM has been driven by both regulatory encouragement and the post-pandemic acceleration of digital transformation across industries (Bondarouk et al., 2020; Novianti & Irawanto, 2021)

A recurring theme in the literature is that the success of e-HRM implementation depends not only on system design but also on user acceptance and inclusivity. For example, Kavitha and Mahalakshmi (2022) highlight that e-HRM must ensure fairness and equal access for employees, including gender-sensitive considerations, while digital HR systems should reduce bias and empower diverse groups. These perspectives underline that evaluating e-HRM should go beyond technical functions and address broader organizational and social dynamics (Wahyudi & Park, 2014).

SWOT analysis is a strategic framework used to evaluate internal strengths and weaknesses alongside external opportunities and threats. It has been widely applied to assess organizational performance and strategic positioning (Ramaraj & Bruque, 2025; Tanuatmodjo, 2021). In the context of e-HRM, SWOT offers a useful lens to identify not only functional challenges and advantages of HR digitalization but also how external markets and technological forces shape system sustainability. While existing studies have explored e-HRM adoption globally (Strohmeier & Kabst, 2020; Paul, Zhang, & Kim, 2025; Hairiyadi & Ahsyar, 2024), research applying SWOT to analyze in-house HRIS within Indonesian technology companies remains limited.

By synthesizing these perspectives, this study positions e-HRM as both a technological and organizational innovation. SWOT analysis is applied not merely as a descriptive tool but as a means of linking qualitative insights to strategic development. This integrated approach contributes to advancing the theoretical understanding of digital HR adoption while offering practical strategies for improving system effectiveness in local organizational contexts (Nugraha et al., 2024).

RESEARCH METHOD

This study adopts a qualitative approach, case study design to explore the implementation of Waktoo, the e-HRM system developed by PT Kazee Digital Indonesia. A case study approach was chosen to capture the complexity of organizational processes in their real-life context (Yin, 2018).

Data Collection Techniques

Data were collected through semi-structured interviews, direct observation, and documentation. A purposive sampling strategy was used to ensure the inclusion of key stakeholders, namely one HR manager, one system developer, and three employees as end users. Interviews were conducted between March and May 2025, each lasting 30-60 minutes, and were recorded and transcribed verbatim. Observations focused on system usage in daily HR operations, while documentation included internal company reports and system manuals.

Data Analysis Technique

Data were analyzed using [Miles and Huberman's \(2018\)](#) interactive model, which involves data reduction, data display, and conclusion drawing/verification. Manual coding was applied to identify themes related to system implementation and SWOT factors. To enhance credibility, data triangulation was carried out by comparing interviews, observations, and documentation, while member checks were conducted with selected participants.

These steps in the data analysis process are illustrated in the following diagram:

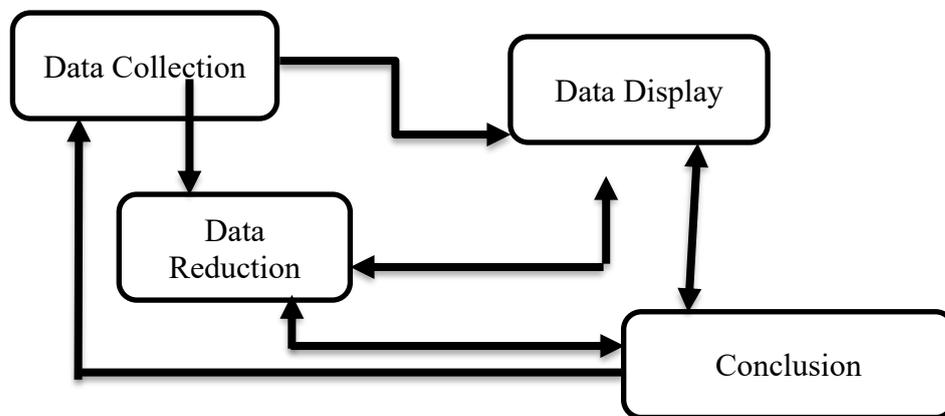


Figure 1. Components of Qualitative Data Analysis

Source: Sugiyono (2018, p. 247)

FINDINGS AND DISCUSSION

The SWOT analysis of Waktoo revealed a mix of technical, organizational, and strategic factors shaping its implementation at PT Kaze Digital Indonesia.

SWOT Analysis of e-HRM Waktoo Implementation at PT Kaze Digital Indonesia

According to [Ramaraj and Bruque \(2025\)](#), SWOT is a strategic tool used to maximize strengths and opportunities while minimizing weaknesses and threats. SWOT framework, companies can gain a better understanding of their current conditions and formulate adaptive strategies ([Al-Khalifa & Fareed, 2023](#)).

In this study, SWOT analysis is applied to evaluate the implementation of the Waktoo e-HRM system at PT Kaze Digital Indonesia. Based on interviews and field data, the SWOT factors are categorized into two main groups: internal factors (Strengths and Weaknesses) and external factors (Opportunities and Threats).

Table 1. SWOT Matrix

	STRENGTH	WEAKNESS
Internal	S1. Attendance system with face recognition and geolocation	W1. Bugs during peak hours (morning)
	S2. Integrated with payroll and leave management	W2. Manual validation for tax and overtime
	S3. Simple, user-friendly UI	W3. Limited use of non-core features
	S4. Stable for large-scale use	W4. Lack of HR training features
Eksternal	S5. Flexible and easily customizable	W5. Users prefer informal communication channels
OPPORTUNITY	STRATEGIC S-O	STRATEGIC W-O
O1. Potential for AI integration	1. Commercialization of Waktoo as a leading national HRIS product	1. Add HR development features (training, performance evaluation)
O2. Growing national HRIS market	2. Integration of AI technology and Fast Track reporting to meet management needs	2. Optimize non-core features (announcements, surveys, etc.)
O3. Already used by over 2,500 external users	3. Branding Waktoo in the digital startup sector with a focus on UI excellence and system stability	3. Educate users to transition from informal communication to the official system
O4. Increasing demand for fast reporting features		
O5. Rising trend of HR digitalization		
THREATS	STRATEGIC S-T	STRATEGIC W-T
T1. Established commercial HRIS competitors	1. Highlight Waktoo's system flexibility to address complex user needs	1. Upgrade server capacity and monitoring systems to prevent technical disruptions
T2. Highly diverse user requirements	2. Develop customization features to compete with other commercial HRIS platforms	2. Conduct regular training for the internal development team to reduce personal dependency
T3. Risk of technical errors: server, GPS	3. Create technical communication SOPs to maintain user trust during bugs or errors	3. Verify official communication channels (automated notifications, internal chat integration)
T4. Dependence on internal development team		
T5. Preference for informal communication		

(Source: Processed by Author, 2025)

Based on the analysis above, the company's performance is influenced by a combination of internal and external factors. The interaction of these factors is illustrated in the SWOT analysis diagram. The following are the author's analyses based on the SWOT matrix:

S-O Strategy (Strengths – Opportunities)

This strategy combines internal strengths and external opportunities, aiming to leverage Waktoo's strengths to capture external opportunities. One of Waktoo's core strengths is its system stability, simple UI design, and customization flexibility. These aspects strongly support the commercialization of Waktoo as a leading local HRIS product, especially amid the growing demand for HR digitalization in startups and private institutions.

Strengthening Waktoo can also be achieved through integrating instant reporting features powered by Artificial Intelligence (AI), such as Fast Track. The integration of AI in reporting and HR analytics can significantly accelerate managerial decision-making processes (Anugrah et al., 2025). This aligns with Paul et al. (2025, p. 2), who state that AI integration in HR systems has proven to improve reporting efficiency by up to 60% and enables real-time data-driven decision-making. Combining internal strengths with external opportunities positions Waktoo as a strategic platform that is not only efficient but also highly relevant in the current HR digital transformation trends. Recommended S-O strategies:

1. Commercialize Waktoo as a leading local HRIS product by highlighting key features such as a simple UI, system stability, and customization flexibility.
2. Integrate AI and Fast Track reporting into Waktoo in response to managerial demands for instant reporting and data-driven decision-making.
3. Develop Waktoo's branding and positioning within the startup sector, aligned with the growing awareness of HR digitalization in creative and technology industries.

S-T Strategy (Strengths – Threats)

This strategy combines internal strengths with external threats, using Waktoo's strengths to overcome external challenges. In this case, Waktoo's system flexibility is the key advantage for addressing the diverse needs of users across various sectors. A flexible system allows smooth customization processes, creating a competitive edge against other commercial HRIS products.

This aligns with the concept of Information System Flexibility by Ramaraj and Bruque (2025, p.10), which explains that information system flexibility serves as a strategic tool to respond to rapid external changes and market preferences. Additionally, strengthening technical handling protocols and crisis communication management is essential to maintain user trust during system lags or disruptions. Guemuesay et al. (2023, p. 3) emphasize that data-driven decision-making systems responsive to technical disruptions significantly influence user confidence in digital platforms. Recommended S-T strategies:

1. Highlight Waktoo's flexibility in accommodating diverse user needs as a competitive advantage over other HRIS solutions.
2. Enhance features that are highly customizable and lightweight to remain responsive to industry dynamics and technology trends.
3. Strengthen technical handling SOPs and crisis communication management to maintain user trust during technical issues such as bugs or GPS errors.

W-O Strategy (Weaknesses – Opportunities)

This strategy combines internal weaknesses with external opportunities to utilize available opportunities in overcoming Waktoo's internal limitations. One key initiative is adding digital HR development features such as AI-based online training to enhance HR effectiveness and strengthen HRIS value in strategic employee management. Additionally, optimizing non-core features such as internal announcements and surveys is necessary to encourage users to rely on official system features rather than informal platforms like WhatsApp. In the Unified Theory of Acceptance and Use of Technology, note that user education and improved performance expectancy can strengthen

comprehensive adoption of digital systems. Recommended W-O strategies:

1. Add digital HR development features such as online training, automated performance evaluation, and career path tracking to increase Waktoo's value proposition.
2. Optimize non-core features like announcements and surveys to promote user engagement within the system rather than shifting to informal platforms.
3. Implement internal user education programs to ensure maximum use of all features aligned with HR digitalization goals.

W-T Strategy (Weaknesses - Threats)

This defensive strategy combines internal weaknesses with external threats, aiming to minimize weaknesses and avoid potential external risks. Key steps include increasing server capacity, implementing monitoring systems, and conducting regular training for internal development teams to reduce dependency on specific personnel.

According to the concept of Strategic Flexibility, organizations with adaptive systems and operational flexibility are more resilient against external threats and market pressures. Moreover, Waktoo must verify official communication channels and automate notifications to reduce reliance on informal communication. [Guemuesay et al. \(2023, p.4\)](#) highlight the importance of automated system-based decision-making management as a mitigation measure against errors in organizational digital communication. Recommended W-T strategies:

1. Upgrade server capacity and monitoring systems to address technical bugs and reduce reliance on manual validation.
2. Conduct regular training for internal development teams to prevent dependency on individual personnel.
3. Verify official communication channels within the system and implement automated notifications and validations to minimize informal communication risks.

This analysis provides a clear roadmap for optimizing the company's strengths and opportunities while addressing weaknesses and mitigating threats to achieve more effective and targeted strategic outcomes.

The most prominent strength of Waktoo lies in its digital attendance system with face recognition and geolocation, which is directly integrated with payroll. This integration reduces administrative errors and increases transparency in attendance reporting. The system also features a user-friendly interface and offers customization options. As one employee noted:

"With Waktoo, I don't need to manually report attendance anymore; it directly links to payroll" - (EMP2).

These findings support earlier studies emphasizing efficiency and transparency as core benefits of e-HRM. Despite these advantages, Waktoo faces weaknesses such as bugs during peak hours and limited use of non-core features. Certain functions, such as internal communication and HR training, remain underdeveloped. As the HR manager stated:

"We use Waktoo mostly for attendance and payroll; for training, we still rely on manual processes" - (HR1).

This reflects findings in the literature that e-HRM systems often prioritize operational over strategic HR functions ([Guemuesay et al., 2023](#)). Externally, Waktoo benefits from the growing HRIS market in Indonesia and the rising demand for efficient HR digitalization. Opportunities for AI integration further expand its potential. However, threats from established commercial HRIS

providers and diverse user requirements pose risks to sustainability. The developer acknowledged these challenges:

“Clients sometimes ask for features that are very specific, and we can’t accommodate all requests immediately” - (DEV1).

Overall, the SWOT mapping highlights the need for a balanced strategy, leveraging integration and customization to capture opportunities, while addressing weaknesses to minimize risk. The analysis indicates that in-house e-HRM systems in Indonesia can remain competitive if they focus on flexibility, stability, and gradual feature expansion.

CONCLUSIONS

This study analyzed the implementation of Waktoo, an internally developed e-HRM system at PT Kazee Digital Indonesia, using SWOT analysis within a qualitative case study. The findings highlight that Waktoo’s main strengths lie in its integrated attendance and payroll system, simple interface, and customization options. Weaknesses include technical bugs, underutilized non-core features, and the absence of HR development modules. Opportunities stem from the growing HRIS market in Indonesia, the rising demand for efficient digital HR solutions, and the potential integration for AI, while threats come from established commercial competitors, diverse user requirements, and sustainability challenges.

Theoretically, this study contributes by demonstrating how SWOT analysis combined with qualitative insights can provide a deeper understanding of e-HRM implementation beyond descriptive evaluation. Practically, it offers strategic recommendations for strengthening Waktoo’s development, such as enhancing technical stability, expanding training and career development features, and leveraging customization to compete with commercial platforms. These insights are relevant not only for PT Kazee Digital Indonesia but also for other organizations developing in-house HRIS solutions in emerging markets.

LIMITATION & FURTHER RESEARCH

This study is limited by its single-case design, which focuses only on one company and a small group of participants. While this provides in-depth insights into Waktoo’s implementation, it restricts the generalizability of the findings. Future research could expand by conducting comparative studies across multiple organizations or industries, employing longitudinal designs to examine system evolution over time, or applying computer-assisted qualitative data analysis software (e.g., NVivo, Atlas.ti) to strengthen analytical rigor. In addition, exploring user experience across different demographic groups, including gender perspectives, would provide a richer understanding of inclusivity in e-HRM adoption.

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