

Research Article

# Optimizing Personnel Services: Analysis of the Effectiveness of e-HR Integration for Civil Servant Leave Management in Gubeng District, Surabaya

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**Abstract.** This study explores the implementation of an electronic Human Resource Management System (e-SDM) in the Gubeng sub-district of Surabaya to optimize civil servant (PNS) leave management. The primary focus is on assessing how digitalization improves efficiency, transparency, accountability, and service quality in human resource administration, particularly in leave processing. Traditionally, manual procedures required 7-14 days to approve leave requests, involved multiple steps, manual calculations, and were prone to errors, delays, and lack of transparency. The introduction of the e-SDM system significantly reduces processing time to approximately one day, enabling online submission, real-time monitoring, and electronic approval accessible anytime and anywhere via smartphones. The system automatically calculates leaves balances and prevents over-application, ensuring data accuracy and reducing misuse. Besides operational efficiency, the system enhances transparency by providing accessible real-time status updates, creating an audit trail for each decision, and making the process auditable and accountable. Despite these advantages, challenges such as user resistance, digital literacy, infrastructure issues, and system integration remain. This research employs descriptive-analytical methods, combining interviews, observations, and documentation, to analyze the effectiveness of e-SDM implementation. The findings indicate that digitalization has streamlined leave management, minimized administrative burdens, and improved data accuracy. Moreover, it fosters a fairer and more transparent work environment, reinforcing good governance principles and supporting Surabaya's vision to become a smart city. The research underscores the importance of technological adaptation within bureaucratic reforms and offers strategic recommendations for further system improvements. Overall, the successful adoption of e-SDM in Gubeng serves as a model for digital transformation in public service delivery, contributing to more efficient, transparent, and accountable governance in local government institutions.

**Keywords:** e-SDM; digital transformation; public service efficiency; transparency; human resource management.

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## 1. INTRODUCTION

The Indonesian government is consistently committed to the Bureaucratic Reform agenda through the implementation of an electronic-based government system or e-Government. (Ressa et al., 2024) The goal is to realize good governance, which is characterized by an adaptive, efficient, transparent and service-oriented bureaucracy. (Saraswati & Deviyanti, 2023) In this context, the management of the State Civil Apparatus (ASN), especially Civil Servants (PNS), is a key pillar because the quality of public services is largely determined by the professionalism and effectiveness of the performance of the employees within it (Law No. 5 of 2014 concerning ASN). (Nazhira & Candradewini, 2025). Internal employee services, such as leave management, are one of the basic rights of civil servants that must be fulfilled by the agency. (Asniar et al., 2024) However, in many local government institutions, especially at the sub-district level, which interact directly with the public (Ayuningtias, 2024) The personnel administration process still frequently faces classic obstacles. Processes that rely on manual, paper-based systems tend to trigger inefficiencies, ranging from lengthy and time-consuming bureaucratic processes. (Ali, 2022), the risk of errors in recording leave data which impacts employee rights, to difficulties in accurate HR supervision and planning by management (Turmudi, 2023). Responding to the challenges of manual bureaucracy, the development and integration of the Human Resources Management Information System (e-

SDM) or commonly known as the Personnel Management Information System (SIMPEG) is an inevitable solution. (Agustin & Mursyidah, 2024) The e-HR system is designed to centralize and integrate all personnel data in one digital platform, promising increased efficiency, transparency, and data accuracy. (Amir et al., 2021). Especially in the management of civil servant leave, digital system integration (e-Leave) has transformative potential. (Saleh, 2025) The digital system allows civil servants to apply for leave online anytime and anywhere. (Telaumbanua et al., 2022) The approval process is faster because notifications are received directly by superiors, and most importantly, employee leave entitlement and remaining leave data are recorded automatically and accurately, thus minimizing errors and preventing delays. (Hermawan et al., 2023). The city of Surabaya, as a metropolitan city, continues to strive to become a smart city by prioritizing the digitalization of public services. (Waldi et al., 2024).

Gubeng District is one of the government work units in Surabaya which has complex administration and a large number of civil servants who require fast and excellent personnel services. (Kirana & Rahadian, 2023). Gubeng District's efforts to implement and integrate the e-HR system in the civil servant leave management process are a concrete step towards optimizing personnel services and implementing bureaucratic reform. (Suartini, 2023). Even though a digital system has been implemented, the success of a system is not only measured by its availability, but also by the effectiveness of its integration and its impact on services. (Haryono et al., 2025). In the context of Gubeng District, a fundamental question arises: to what extent is this e-HR integration truly effective in overcoming manual bureaucratic problems, accelerating the leave application and approval process, and ensuring the accuracy of civil servant leave entitlement data? Are the obstacles faced technical (infrastructure), procedural, or from the perspective of the readiness of the Human Resources (HR) of its users. Therefore, this research entitled "Optimizing Personnel Services: Analysis of the Effectiveness of e-HR Integration in Civil Servant Leave Management in Gubeng District, Surabaya" is very relevant and important. This research will in-depth examine and analyze the effectiveness of the implementation of the digital system, provide data-based input (evidence-based) regarding its positive impacts, identify gaps or obstacles that may occur in the field, and ultimately, formulate strategic recommendations to improve the optimization of civil servant services at the sub-district level. Through this analysis, it is hoped that Gubeng District can become a model for successful e-HR implementation in realizing professional, accountable, and service-oriented ASN management.

**TABLE 1.** Optimization of Personnel Services: Transformation of Leave from Manual to Digital in Gubeng District.

No.	Effectiveness Indicators	Pre-Integration Condition of HR (Manual System)	Post-Integration Condition of e-HR (Digital System)	Data source
1	Leave Application Processing Time	The average time is 3-5 business days. The process is lengthy because it has to go through four departments (staff, sub-district head, secretary, and sub-district head) and there are often delays because the sub-district head's physical documents are not available.	On average, 1 working day of Sub-district Head/Secretary Approval can be done anytime and anywhere via smartphone without having to wait for the physical document.	Personnel Staff Interview
2	Accuracy & Transparency of Leave Entitlements	Due to the general ledger/Excel accounting system, civil servants are often unsure of their remaining annual leave.	The system automatically calculates remaining leave and blocks applications that exceed the entitlement. Civil servants can monitor the status of applications in real time.	Interview of Civil Servants Using Services
3	Archiving Oversight Challenges	Piles of physical files that are difficult to find and at risk of being lost. Difficult to summarize for audits/planning.	All documents are stored digitally (paperless). Leave recaps can be generated in less than 5 minutes.	Observation and Interview of the Head of General Affairs
4	Perception of Personnel Services	Considered unresponsive and of complicated, civil servants feel that leave services are an administrative burden that should be avoided.	Considered easy, fast, and modern, the personnel services are more professional and support civil servant performance.	Civil Servant Representative Interview (Various Positions)
5	Critical Post-Implementation Barriers	-	Limited internet access (signal) in some office areas or when sub-district heads are on duty in the field causes delays in approvals. A small number of senior civil servants are still unsure how to use the application and need guidance.	Interview with Sub-district Head and IT Staff

(research data source 2025)

Based on table 1 shows a comparison of conditions before and after the implementation of the e-HR digital system in managing Civil Servant (PNS) leave. Prior to implementation, the leave application and approval process took 3-5 working days due to the need to go through several stages of physical documents and manual verification, and was prone to errors in calculating remaining leave and loss of archived documents. Furthermore, the service was considered unresponsive and complex, giving rise to a perception of unprofessionalism. After the integration of the digital system, the processing time can be reduced to approximately one day and can be done anytime and anywhere through digital devices, increasing efficiency and user convenience. The automated system also improves data accuracy and transparency, facilitates monitoring and audits, and simplifies archive management. However, post-implementation obstacles remain, such as limited internet access and a lack of digital literacy among senior employees. Overall, the implementation of e-HR has had a significant positive impact in improving the speed, accuracy, and professionalism of personnel services, while also highlighting the need to address technological barriers and user training for system optimization.

## 2. THEORETICAL BASIS

### Optimization of Public Services (Personnel)

Optimization is defined as the effort to achieve the best results or the maximum level achievable from a process or system with available resources. In the context of public services, Optimizing Personnel Services aims to ensure that all employee administration and rights (including leave) can be processed quickly, accurately, easily, and transparently (LAN

RI).(Wedananta et al., 2024). Modern excellent employee service standards demand a shift from rigid bureaucracy to responsive service. This optimization is a manifestation of the agency's commitment to Bureaucratic Reform, especially in the area of HR management. Optimization of employee services can be measured through several dimensions, Efficiency, namely Reducing the time and costs required to complete a process. Accessibility, namely Ease for Civil Servants to access services without being limited by space and time. And Accuracy, the precision of the data used, especially in calculating leave entitlements.

### **Concept of Human Resources Information System (e-HR)**

e-SDM or Human Resource Information System (HRIS) is an integrated information technology-based system designed to collect, store, process, and present data and information needed in human resource management. In the public sector, e-SDM plays a role as SIMPEG (Personnel Management Information System). The implementation of e-SDM in managing civil servant leave aims to transform manual processes into digital ones, including Submission Digitalization: Employees can apply for leave through a portal or application, Verification Automation: The system automatically verifies the availability of leave rights according to regulations (BKN Regulation No. 7 of 2021)(Oktavia et al., 2025). Then Transparency of Approval: Superiors/authorized officials provide approval electronically (e-Approval), accelerating the bureaucratic flow that was previously hampered by physical limitations. The existence of e-HR is the main prerequisite for realizing paperless and data-based personnel governance (evidence-based policy).

### **System Integration Effectiveness**

Effectiveness refers to the extent to which predetermined goals can be achieved. In this study, the Effectiveness of e-HR Integration is measured by the ability of the new system to achieve the goal of optimizing personnel services, namely providing better leave services compared to the previous manual system. The effectiveness of e-HR integration can be analyzed based on existing models, one of which is the Technology-Organization-Environment (TOE) approach which is simplified into three main dimensions that mutually influence the success of the system: Technology Dimension (System Success)(Abdullah et al., 2025): Refers to the functional quality of the system itself. This includes ease of use (user-friendliness), system reliability (minimal errors), and data security (privacy and integrity of leave data). Organizational Dimension (Process Success): Related to changes in work procedures and HR readiness. Integration is considered effective if the old work procedures have been replaced, and both personnel staff and civil servant users have the competence and willingness to use the system (adoption). User Dimension (Impact Success): Is a tangible result felt by users. In this case, effectiveness is measured by reduced waiting time, increased accuracy of leave data, and increased civil servant satisfaction with the services provided. By analyzing these three dimensions in a case study in Gubeng District, this study can present a comprehensive analysis of the success of optimizing personnel services through technology integration.

## **3. METHOD**

This study uses a qualitative approach with a descriptive-analytical research type. The qualitative approach was chosen because the study aims to explore in depth the perceptions, experiences, challenges, and meanings behind the implementation and effectiveness of the e-HR system integration in the management of civil servant leave in Gubeng District. The descriptive-analytical method will be used to describe the factual conditions in the field, then analyze the data based on a theoretical basis to assess the effectiveness of the system. Research Location: Gubeng District Office, Surabaya City. This location was chosen as the unit of analysis because it is a government agency at the forefront of services that has implemented a digital system (e-HR) in personnel administration management, especially civil servant leave.(Hasan et al., 2022). This research focuses on the Effectiveness of e-HR Integration in optimizing PNS leave management services, which will be analyzed through three main dimensions of System Quality (Technology): Ease of use, reliability, and e-HR system features.

Process Quality (Organization) Changes in work procedures, time efficiency, and transparency of the leave approval process. Impact Quality (User) Perception of satisfaction and experience of civil servant users towards digital leave services. Research data is divided into two types of Primary Data: Data obtained directly from informants through in-depth interviews and field observations. Key Informant: Sub-district Head or Sub-district Secretary (as the policy maker and highest leave approving official). Main Informant: Staff/Head of Personnel or General Affairs (as the daily manager of the e-SDM system) and IT staff responsible for the system. Supporting Informant: A number of civil servants from various work units (executive staff to Head of Section) who actively use leave services through e-SDM (Sulistiyawati, 2023).

Secondary Data Supporting data obtained from agency documents and archives. For example, Standard Operating Procedures (SOP) for manual vs. digital leave services, recapitulation data on the number of leave applications before and after integration, and documentation of e-HR implementation. Data Collection Techniques In-depth Interviews Conducted in a structured and unstructured manner to all informants to gather detailed information regarding experiences, perceptions of effectiveness, and operational challenges before and after e-HR integration. Passive Participant Observation: Researchers directly observed the process of submitting, verifying, and approving leave through the e-HR system carried out by personnel staff and civil servant users. Researchers also observed the condition of supporting infrastructure (internet, hardware) in the Sub-district environment. Data analysis was carried out using the interactive model of Miles, Huberman, and Saldana, which consists of three activity flows carried out simultaneously Data Collection: Data collection through interviews, observation, and documentation. Data Condensation: The process of selecting, focusing, simplifying, and abstracting raw data that emerged from field notes. Irrelevant data (for example, about administration other than leave) will be removed. Data Display: Presentation of qualitative data in the form of narratives, matrices, and comparison tables (such as the qualitative "Before and After" table that has been designed) to facilitate understanding. Conclusion Drawing/Verification: Researchers draw conclusions based on organized field data findings. These conclusions are then verified to ensure the credibility and validity of the findings. To ensure the validity of the findings, the Source Triangulation technique is used, namely comparing information obtained from one informant (for example, a civil servant user) with another informant (for example, personnel staff) or with secondary data (agency documents), to ensure the consistency and objectivity of the data.

#### **4. RESULTS AND DISCUSSION**

##### **Analysis of Integration Quality and Its Impact on Leave Service Time Efficiency**

Analyzing the quality of electronic Human Resources (e-SDM) system integration, particularly in the Civil Servant (PNS) leave management module, is key to measuring the optimization of personnel services. Quality integration not only transforms processes from manual to digital but also fundamentally impacts the time efficiency and productivity of State Civil Apparatus (ASN). Integration quality in the context of e-SDM refers to how smoothly, accurately, and in real-time leave data flows between various subsystems. (Mendez et al., 2025). This includes User-Friendliness: How easily civil servants as end users can apply for leave and monitor its status without the need for physical intervention or assistance from personnel staff. Data Connectivity: Good integration ensures that remaining leave allowances, leave history, and other personnel data are automatically linked. For example, when leave is approved, the data is automatically updated in the attendance and payroll databases, eliminating the need for double or manual input. and Workflow support: The system must be able to facilitate a multi-level approval flow (from the direct supervisor to the Personnel Development Officer) electronically, complete with automatic notifications and time logs. (Tumilantouw et al., 2024).

The transition from a manual system to an integrated e-HR system has a significant impact on time efficiency, which can be divided into two main aspects: Reducing Administrative Process Time (Hasim et al., 2025). In a manual system, the leave process involves physical forms, wet signatures, sending documents between units, and paper filing, which often takes days or even weeks. The e-HR integration transforms it into a paperless and automated process. Fast Submission: Civil servants can apply anytime and from anywhere, reducing submission time. Instant Verification: Verification of leave quota availability is carried out by the system in real-time. Digital Approval: Superiors can provide approval through digital devices, eliminating delays due to physical absence. Overall, the integrated system can reduce leave processing time by 50-80% compared to traditional methods, which has a direct impact on increasing ASN productivity because they can focus on their core tasks, not bureaucracy.

Time efficiency is not only measured by speed, but also by the minimum number of errors. Poor integration often results in human error or discrepancies in leave allocations. An integrated system ensures more accurate and real-time personnel data. Accurate leave data enables management to make data-driven decisions regarding human resource (HR) planning and ensures employee availability according to operational schedules, thus ensuring uninterrupted regional government operations. Despite its significant benefits, the effectiveness of e-HR integration can be hampered by several factors, including resistance to change and limited digital literacy among employees, as well as limited information technology infrastructure. Therefore, successful service optimization depends heavily on comprehensive training and adequate technical support. (Jumia et al., 2024).

**TABLE 2:** Perceptions and Obstacles in the integration of e-HR for Civil Servant Leave.

Dimensions	Respondent Subject	Key Interview/Observation Indicators	Examples of Findings
1. User Experience Quality (Ease of Use)	Civil Servant Users (Staff)	Perceptions of ease of system access (desktop vs. mobile), clarity of the application process, and feedback on errors	"The interface is simple enough, but it loads slowly during peak hours and the 'Submit' button is less responsive in some browsers."
2. Effectiveness of Approval & Notification Flow	Civil Servants Users & Direct Superiors	Speed and reliability of approval notifications (email/SMS), ease of superior access to the system, and delegation flow	"Notifications go to spam, and superiors have to log in twice to verify, slowing down the process."
3. Impact on Personnel Staff Workload	e-HR Admin Staff	Workload changes, most frequent troubleshooting, and advanced training needs	"Paperwork has been reduced, but we're busy dealing with errors in leave data."
4. Non-Technical Barriers & Resistance to Change	Senior Civil Servants & Personnel Staff	Reasons for civil servants to submit manual applications, login difficulties, and account issues	"Many people ask for help logging in because they lack confidence in using technology."
5. Accuracy and Synchronization of Leave History Data	Personnel & Leadership Staff	Problems with synchronizing old data, and data validity when changing years or mutations	"Data before 2023 is often incorrect and must be re-verified from physical archives, which slows down the process."

*(research data source 2025)*

Table 2 shows that the implementation of the e-HR system for leave in Gubeng District has not achieved optimal time efficiency due to significant non-technical gaps. Although the digital system has reduced paper bureaucracy, the main challenges are rooted in human factors and data quality. The biggest challenges lie in inconsistent User Experience (UX) and digital anxiety-based resistance among senior civil servants. Technical issues such as

slow loading times and ineffective notifications (spam) undermine user trust in the system, prompting them to seek manual assistance from personnel staff. For personnel staff, the workload has not disappeared, but has shifted from paper administration to data cleansing and troubleshooting. Time that would have been saved is now spent addressing human errors in submissions and, more critically, resolving issues with synchronizing leave history data between the District system and legacy BKD data. This forces staff to manually cross-validate with physical archives, effectively negating the promised speed benefits of digitization. (Satispi et al., 2025).

In conclusion, improving time efficiency depends not only on technical improvements (such as server stability), but also on improving civil servants' digital literacy through intensive training and building trust in data accuracy. Priority should be given to thorough audits and accurate synchronization of leave data from the system's initial stage, as well as streamlining notification and approval processes that are easily accessible to superiors. Without addressing these non-technical and data-driven root causes, optimizing personnel services will stagnate at the stage of partial digitization. (Surtyani et al., 2022).

### **Increased Accountability and Transparency in Leave Decision-Making**

Improving Accountability and Transparency in Leave Decision-Making through Digital Systems Digital transformation in the management of Human Resources (HR) of State Civil Apparatus (ASN), particularly in the leave application and approval process, has become a key pillar in realizing good governance. Improving accountability and transparency in leave decision-making is a core benefit of adopting electronic systems, such as the e-Cuti application or part of an integrated e-HR system. Before the digital system, the leave process was often manual and potentially time-consuming, inefficient, and difficult to track. Transparency arises when the process is digitized Real-Time Access, namely Civil Servants (PNS) can now monitor the status of their leave applications in real-time. Information regarding when the application is received, is being processed by superiors (Staff, Sub-district Head/Secretary), or approved, can be accessed anytime and anywhere via smartphone. This eliminates uncertainty and the need to wait or ask for physical documents (Tjahyono et al., 2023).

Transparency of Remaining Leave Data: The system automatically calculates employees' remaining leave. With data accurately recorded and displayed in the system, both employees and management can clearly see how much leave they have remaining. This minimizes the risk of data discrepancies or miscalculations that were previously common in manual administration. Standardized Decision-Making: Digital applications enforce a standardized and structured workflow (Norms, Standards, Procedures, and Criteria/NSPK). This ensures that leave approvals are based on clear data and rules, rather than non-procedural interventions, thus strengthening meritocracy. Accountability, or accountability, is strengthened through automation and data integration. The system has the ability to block applications that exceed employee leave entitlements. Thus, approval decisions made by superiors are guaranteed to comply with Government Regulations on Civil Servant Management, thus preventing potential abuse of leave entitlements. Every approval action (by superiors) or processing (by personnel units) is digitally recorded with a time stamp. This record serves as a clear audit trail, making all parties involved accountable for their decisions. If problems arise, tracing data sources and decisions becomes easier. (Dharmaningtias, 2025).

Accurate Database for Management, namely integrated leave data allows management to make more precise and data-driven decisions. For example, the Personnel Unit can quickly assess personnel availability and ensure that leave approval does not disrupt regional apparatus operations, which is a form of better operational accountability. Overall, the implementation of the electronic leave system within the e-HR framework has transformed the personnel administration process from being previously slow and paperless to being fast (average 1 working day), efficient, transparent (the entire process can be monitored), and accountable (decisions are based on accurate and recorded rights data), thus supporting the creation of Good Governance.

**TABLE 3:** Comparison of Accountability and Transparency Aspects before and after Digitalization of Leave.

Measured Aspects	Conditions Before Integration (Manual System)	Post-Integration Condition (Digital System/e-HR)	Increased Accountability & Transparency
Average approval time	7 - 14 working days (including document search)	Average 1 working day (without having to wait for physical documents)	Efficiency & Transparency: Gone are the long-winded processes, wait times are measurable and monitored.
Checking remaining leave	Done manually by Personnel Staff, prone to errors, and often not up-to-date.	The system automatically calculates remaining leave and blocks applications that exceed entitlements.	Data Accountability: Leave data is always accurate and consistent, minimizing the potential for abuse of rights.
Approval mechanism	Wet signature and tiered stamp are required on the physical form, must be done in the office.	Approval by superiors (Staff, Sub-district Head/Secretary) can be done anytime and anywhere via smartphone.	Transparency & Flexibility: Decisions are recorded in real-time in the system, eliminating physical barriers and speeding up the process.
Monitoring application status	Employees must ask the Personnel Staff or superior directly.	Civil servants can monitor the status of their application in real-time via the application dashboard.	Full Transparency: Eliminates uncertainty and gives employees full control over their leave entitlement process.
Document storage and audit	Physical documents (paper) are piled up in filing cabinets, difficult to audit, and prone to loss.	All data and leave decision history are stored digitally and ready to be audited (audit trail) at any time.	Decision Accountability: Every decision has a clear digital footprint, reducing the risk of corruption, collusion, and nepotism and facilitating oversight.

(research data source 2025)

Based on Table 3, the transition from manual Civil Servant (PNS) leave management to a digital system (e-SDM or e-Cuti) has resulted in substantial improvements in accountability and transparency, in line with the principles of Good Governance. Qualitative data shows that the digital system fundamentally changes the bureaucracy, from one that was previously person-dependent to one that is system-dependent.

In terms of transparency, the most significant change is the elimination of lengthy processes. Leave approval times have been drastically reduced from an average of 7-14 days to just one working day. Furthermore, the system provides full transparency through real-time application status monitoring via smartphone, eliminating the need for civil servants to directly inquire with Personnel Staff. (Wicaksana et al., 2024) The approval mechanism is flexible, as it can be carried out by superiors anytime and anywhere, with every step recorded and easily tracked. In terms of accountability, the digital system acts as an automated supervisor. Error-prone manual processes are now replaced by a system that automatically calculates remaining leave and blocks requests that exceed entitlements. This ensures data accountability and prevents abuse of leave rights. Furthermore, storing all data and leave decision history in digital format (audit trail) ensures that every decision has a clear trail, facilitates audits, reduces the risk of Corruption, Collusion, and Nepotism (KKN), and enforces accountability at every level of approval. Ultimately, this transformation is not only efficient but also creates a higher sense of fairness among civil servants because their rights are managed consistently, accurately, and transparently.

#### 4. CONCLUSION

This study examines in depth the implementation of the e-HR system as a form of digital transformation in personnel administration management in Gubeng District, Surabaya. The main focus is how this system improves efficiency, transparency, accountability, and the quality of personnel services, particularly in the management of civil servant leave. The implementation of this digital system is part of Surabaya's efforts as a smart city to provide faster, more accurate, and more transparent public services. Before digitalization, leave management was carried out manually with a long and complicated process, taking up to 7-14 days and involving many parties and physical documents. The manual system is prone to calculation errors, opportunities for abuse of leave rights, and is difficult to audit. In this manual process, transparency and accountability are less than optimal, because data is often inaccurate and the approval process cannot be monitored in real time. The implementation of e-HR offers several significant advantages. Through the digitalization of leave applications, employees can now submit requests online through a portal or application, which are then verified and approved electronically by superiors. This process speeds up approval times from 7-14 days to approximately one business day, and allows submissions and approvals to be made anytime and anywhere, via smartphone. The system automatically calculates remaining leave accurately and immediately blocks submissions that exceed employee entitlements, thereby reducing the risk of errors and misuse. In addition to time efficiency and data accuracy, transparency is a key aspect that is being strengthened. The system provides real-time access for employees to monitor the status of submissions, ensuring an open and accountable process. The system also maintains a complete audit trail of all submission and approval stages, facilitating audits and oversight by relevant parties. However, this digitalization process is not without challenges. Resistance from civil servants who lack confidence in using technology and difficulty logging in are non-technical obstacles. On the other hand, technical obstacles in the form of infrastructure and system integration also need to be continuously improved. Nevertheless, this system has proven to be able to reduce administrative workloads and increase the accuracy and effectiveness of personnel management processes. In conclusion, the digital transformation through e-HR in Gubeng District has shown a significant positive impact on improving personnel services and HR management. This system not only speeds up administrative processes but also increases accountability and transparency, while also providing a sense of fairness to employees. This successful implementation exemplifies the application of relevant technology in bureaucratic reform and the move toward more modern, effective governance oriented toward excellent public service.

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