# The Implementation Of Digital Attendance In Improving Civil Servant Discipline: A Case Study At Bkpsdm Bolaang Mongondow Timur

Rilke Afni Johannes*, Moh. Rezhah Mamonto, Yanto Modeong, Agus Kristianto Djajusman

Universitas Islam Syekh-Yusuf, Indonesia

Email: 2407010147@students.unis.ac.id*

This study aims to analyze the effectiveness of implementing a digital attendance system in improving the state civil apparatus (ASN) discipline within the Personnel and Human Resources Development Agency (BKPSDM) of East Bolaang Mongondow Regency. This study uses a descriptive qualitative approach with a case study method and data triangulation through documentation of employee attendance, results of leadership interviews, and questionnaires to ASN. The results showed that the digital attendance system based on fingerprint technology and the SIADAB application (Boltim ASN Digital Attendance System) positively impacted ASN discipline. Attendance data shows a trend of high attendance consistency, while questionnaire respondents showed an outstanding level of acceptance of this system. In addition to increasing transparency and accountability, this system supports a more efficient and data-driven personnel management process. However, some challenges remain, such as limited infrastructure and technical constraints in the early stages of implementation. This study recommends strengthening training, developing an integrated system, and continuous managerial support to ensure the sustainability of digital innovation in ASN discipline management.

Keywords: digital attendance; ASN discipline; SIADAB application; personnel management; digital bureaucracy.

## INTRODUCTION

Work discipline is a cornerstone for effective, efficient, and accountable governance. For the state civil apparatus (*ASN*), discipline indicates adherence to regulations and reflects individual and institutional performance in delivering quality public services (Ningsih et al., 2021; Rawinarno et al., 2023; Saputra, 2023; Yuningsih, 2018). However, numerous reports suggest that *ASN* discipline levels in Indonesia continue to struggle with challenges, particularly regarding attendance and punctuality (BKN, 2022). This situation highlights the need for innovations in a transparent, accurate, and technology-driven attendance management system.

The development of information technology has opened up tremendous opportunities to transform the manual or conventional attendance system into a more efficient and measurable digital system. Various government agencies have adopted digital attendance systems, such as fingerprints, GPS, and mobile applications, to enhance the accuracy of attendance data, reduce the potential for manipulation, and strengthen employee accountability (Sari & Ramadhan, 2020). Gerungan et al. (2024) showed that implementing digital attendance at the Manado City *DPRD* Secretariat improved *ASN* work discipline through increased responsibility and adaptation to technology-based systems.

Digital attendance systems have been implemented in various regions with mixed results. For example, research by Sukmawati et al. (2023) at the South Konawe Regional Finance Agency found that while an online attendance system had been implemented, its effectiveness remained hindered by infrastructure limitations, human resource capacity, and a lack of technical training. This suggests that the successful execution of digital attendance depends on the technology used, organizational readiness, and managerial support. In East Bolaang Mongondow Regency, the Personnel and Human Resources Development Agency (*BKPSDM*) has implemented a digital attendance system through the *SIADAB* application, which integrates fingerprint and GPS technology. This initiative is part of the bureaucratic reform effort to improve the systemic discipline of *ASNs*. However, until now, there have not been many academic studies evaluating the effectiveness of this system in the local context, including employee perceptions of changes to the attendance system.

This research addresses the literature gap related to implementing digital attendance in the *BKPSDM* of East Bolaang Mongondow. Using a case study approach, it will analyze the impact of the digital attendance system on *ASN* discipline and identify factors that support or hinder the system's effectiveness. Additionally, it will explore the perceptions of both employees and leaders regarding changes in the technology-based attendance system. The problem formulation in this study includes three main aspects: the implementation of the digital attendance system in *BKPSDM* Bolaang Mongondow Timur, the extent to which the system affects the discipline of the state civil apparatus (*ASN*), and the factors that support or hinder the effectiveness of this implementation. Based on this formulation, the study aims to describe the implementation of the digital attendance system in *BKPSDM* Bolaang Mongondow Timur, analyze its effect on the discipline level of *ASN*, and identify various factors influencing the successful implementation of the system. In light of understanding the

dynamics associated with implementing digital attendance within *BKPSDM* Bolaang Mongondow Timur, this research aspires to contribute substantively to advancing more effective personnel management policies and practices.

## MATERIALS AND METHODS

This study employs a descriptive qualitative approach using a case study method to thoroughly examine the implementation of digital attendance to enhance the discipline of *ASN* at *BKPSDM* Bolaang Mongondow Timur. This approach was selected to enable researchers to investigate intricate contexts and dynamics associated with technological implementation within a bureaucratic setting (Creswell, 2014). The research location is the *BKPSDM* of East Bolaang Mongondow Regency, which has implemented a digital attendance system based on the *SIADAB* application (*Sistem Absensi Digital ASN Boltim*). This system integrates fingerprint technology and GPS to record employee attendance in real-time. The choice of this location is based on the fact that *BKPSDM* is the agency directly responsible for personnel management, making it a relevant site to study the effectiveness of the digital attendance system.

Data collection techniques included observation, in-depth interviews, and documentation. Observations aimed to understand the operational process of the digital attendance system and employee behaviour in utilizing the system. In-depth interviews were held with *BKPSDM* leaders and several employees to gain their insights on the implementation of the system and its effect on work discipline. Documentation involved analyzing employee attendance data before and after implementing the digital attendance system. A data triangulation approach was applied to enhance the validity of the findings (Patton, 2015). Data analysis was conducted through data reduction, presentation, and conclusion drawing. Data reduction involved selecting and focusing on data relevant to the research objectives. Data presentation included descriptive narratives and tables to enhance understanding. Conclusions were drawn by identifying patterns and relationships between the implementation of the digital attendance system and the level of employee discipline. This method aligns with the approach used in similar research on the effectiveness of digital attendance systems in government agencies (Hudri et al., 2024).

To ensure data validity, source and method triangulation techniques were utilized. Source triangulation entails comparing information from various sources, while method triangulation refers to comparing data obtained through observation, interviews, and documentation. Additionally, member checking involved soliciting confirmation from informants regarding the accuracy of the data collected. These steps aim to enhance the credibility and reliability of research findings (Lincoln & Guba, 1985).

## RESULTS AND DISCUSSION
### Effectiveness of Digital Time Attendance on Discipline

Implementing a digital attendance system at BKPSDM Bolaang Mongondow Timur has significantly improved ASN discipline. Attendance recapitulation data for January to March

2025 recorded an average ASN attendance of 97%, with most employees showing a 100% attendance rate. This reflects the effectiveness of the digital attendance system in improving employee discipline. This result is in line with the findings of Hudri et al. (2024), which state that the application of the Android-based online attendance application at the West Sumbawa Regency Personnel and Human Resources Development Agency has a significant influence on improving employee work discipline. The validity and reliability tests show that the digital attendance system contributes positively to ASN discipline.

Recapitulation of The Attendance of Employees
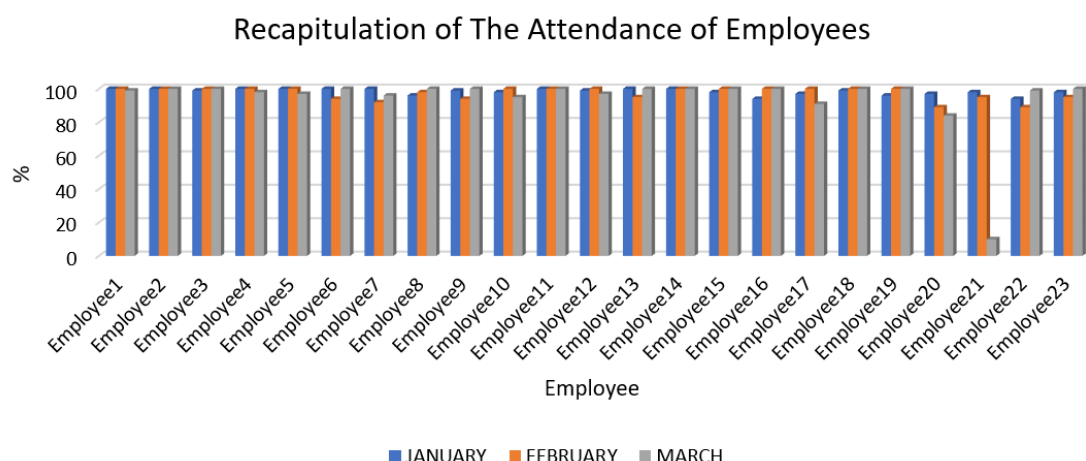


**Figure 1: Recapitulation Of the Attendance of Employees**

In addition, research by Gerungan et al. (2024) at the Manado City DPRD Secretariat showed that implementing digital attendance increased employee responsibility and job satisfaction and encouraged adaptation to new technology. Employees became more aware of the importance of punctual attendance, which improved work productivity.

Recapitulation of accumulated discipline and performance percentages
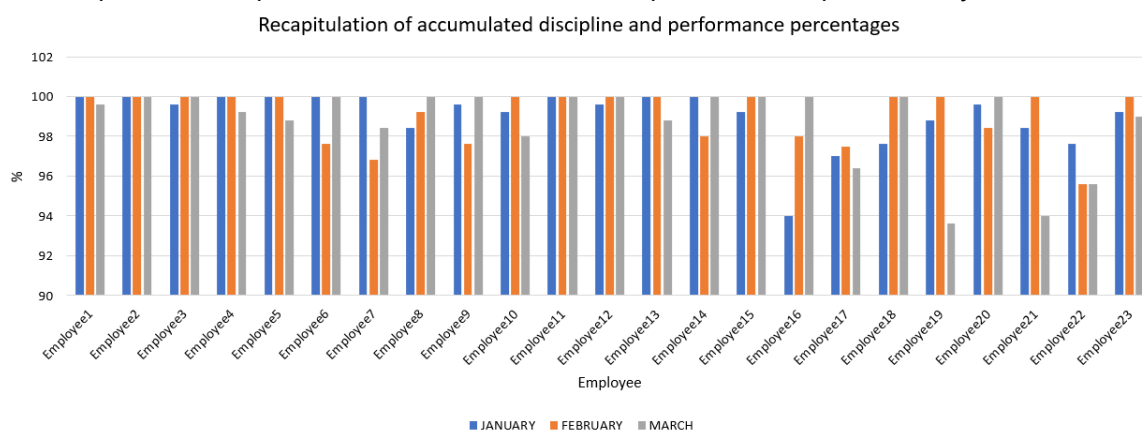


**Figure 2: Recapitulation of accumulated discipline and performance percentages**

However, implementing a digital attendance system also faces challenges, such as technical constraints and initial employee resistance. Research by Sukmawati et al. (2023) at the South Konawe Regional Finance Agency found that although online attendance has been implemented, shortcomings in facilities and infrastructure remain, and further development is needed to monitor employees' locations after absence. Therefore, the success of a digital attendance system depends not only on technology but also on organizational readiness and

management support.

**Employee Perception of the Attendance System**

The results of in-depth interviews with the state civil apparatus (ASN) in BKPSDM of East Bolaang Mongondow show that most employees positively perceive implementing the SIADAB digital attendance system. They consider that this system makes a real contribution to increasing transparency and accountability in recording attendance, while minimizing the potential for data manipulation that often occurs in manual attendance systems. This finding is in line with the results of Pratiwi's research (2018), which states that the implementation of e-presence in the Semarang City Government has succeeded in increasing efficiency and transparency in the attendance management of civil servants.
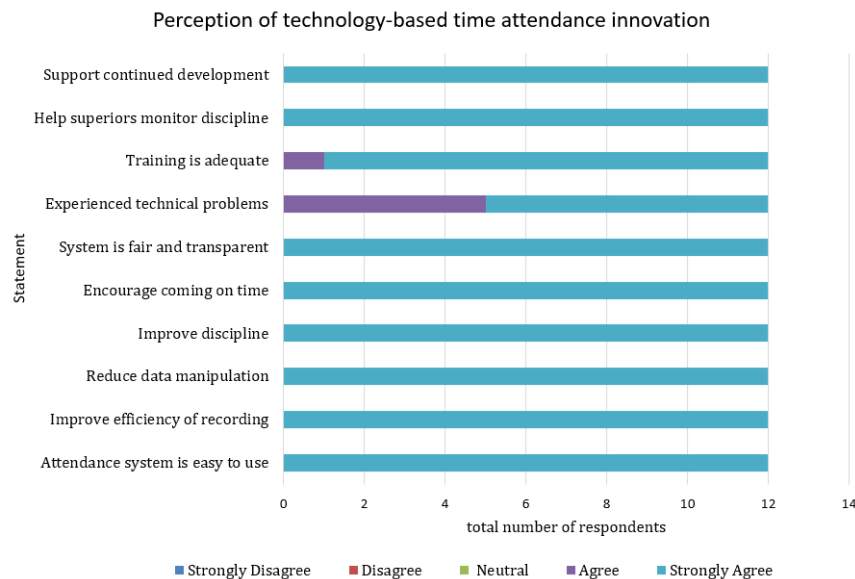


**Figure 3: Perception of technology-based time attendance innovation**

However, not all employees experienced a smooth transition. Some ASNs, especially from the older age group, expressed difficulties in adapting to digital technology. They feel less familiar with mobile-based applications and take longer to understand the system's workflow. This condition was also found in Pratiwi's study (2018), where elderly employees faced obstacles in operating the e-performance and e-presence systems, indicating the importance of an inclusive approach in implementing digital technology in the government sector. In addition to age and digital literacy factors, employee perceptions of the digital attendance system are also influenced by work motivation. Research by Wahyuni (2024) at Politeknik Negeri Bali shows that the effectiveness of the digital attendance system and work motivation has a positive and significant influence on employee discipline. This means that positive perceptions of the attendance system can be strengthened through proper management of work motivation, such as providing appreciation or performance-based incentives.

However, implementing a digital attendance system cannot be separated from structural challenges, especially related to the readiness of technological infrastructure and internet

access. The Kantor Kita report (2025) highlights that the main obstacles in implementing electronic attendance systems in government agencies, especially in the regions, include limited infrastructure, low internet connection stability, and a lack of technical support. These conditions can affect the system's effectiveness and employees' perceptions of its ability to support improved work discipline.

Overall, ASN's perception of the digital attendance system in BKPSDM Bolaang Mongondow Timur shows a positive trend, especially regarding transparency and accountability. However, strategic steps are needed to optimize the system's acceptance and effectiveness, such as providing technology training for less familiar employees, improving network and system infrastructure, and strengthening motivational aspects in personnel management. With this support, the digital attendance system has the potential to be an effective instrument in encouraging sustainable improvement in ASN work discipline.

**Leadership Views and Impact on Management**

Implementing the digital attendance system at BKPSDM Bolaang Mongondow Timur received full support from the agency's leadership. They consider that this system can increase efficiency in managing ASN attendance, reduce the potential for fraud, and provide real-time attendance data that can be accessed easily. This support is in line with government policies that consistently encourage the digitization of public administration as part of bureaucratic reform to create more efficient and responsive governance (Ministry of PANRB, 2021).

The leaders also appreciated the transparency resulting from implementing the digital attendance system. The presence of a system that provides accurate data and can be accessed at any time supports a more objective employee performance evaluation process. In addition, integrating attendance data and the performance allowance (Tukin) system is considered a strategic step to improve ASN discipline. Subekti and Utomo (2022) state that the digital attendance system is a control tool and a performance-based incentive mechanism.

However, implementing this system is also not free from challenges. Some leaders noted initial resistance from employees, especially those unfamiliar with digital technology. Socialization and training activities were conducted to overcome this obstacle and improve employees' digital literacy and technical skills in operating the system. This finding aligns with Kurniawan's (2020) research results, which emphasize the importance of continuous training in successfully adopting information technology in the public sector. From the managerial side, the digital attendance system has a positive impact on supporting strategic decision-making. Attendance data recorded in real time allows leaders to monitor employee attendance patterns, develop more adaptive work schedules, and take corrective action in the event of disciplinary violations. This system also increases organizational productivity through more measurable human resource management (Rahmawati, 2023).

Furthermore, the presence of this digital system contributes to increased accountability in ASN management. With the support of valid and documented data, leaders can conduct fairer and fact-based performance evaluations and set more targeted policies. This supports the creation of a modern and accountable bureaucracy as directed in the vision of national

bureaucratic reform (LAN RI, 2022). Overall, leaders' views on the digital attendance system at BKPSDM Bolaang Mongondow Timur are very positive. They view this system as an effective instrument for improving ASN discipline and strengthening data-based organizational management. Although implementation challenges remain, leadership commitment and adequate policy support are key factors in optimizing the benefits of this system for improving overall organizational performance.

**Implementation Challenges**

Implementing a digital attendance system within government agencies, including BKPSDM Bolaang Mongondow Timur, faces various challenges that affect its effectiveness. One of the main challenges is the resistance of some employees to technological change. Lack of digital literacy and discomfort in using new applications are often the leading causes of this resistance. Research by Wulandari (2022) shows that resistance to new technology can hinder the digitization process in organizations, especially if not balanced with adequate training and socialization. In addition to individual resistance, limited technological infrastructure is a significant obstacle to implementing the digital attendance system. Some areas in East Bolaang Mongondow still experience problems with stable internet access, which impacts the reliability of the digital attendance system. This aligns with the findings by Muharman et al. (2023), who stated that inadequate technological infrastructure can hinder optimizing digital systems, especially in geographically challenging areas.

Reliance on employees' devices also poses challenges. Not all employees have devices compatible with digital attendance applications; some object to using personal devices for official purposes. This can lead to dissatisfaction and reduce the system's effectiveness. Research by Setiawan and Sari (2023) emphasizes the importance of providing official devices or compensation for using personal devices to support the successful implementation of digital systems.

Integrating digital attendance systems with other personnel management systems also faces obstacles. The mismatch between the attendance and payroll or performance management systems can cause data duplication and increase administrative workload. According to research by Olindo and Syaripudin (2022), non-optimal integration between systems can lead to inefficiencies and hamper the data-based decision-making process. A comprehensive implementation strategy is needed to overcome these challenges, including employee training, improving technology infrastructure, providing adequate equipment, and selecting systems compatible with existing systems. With the right approach, challenges in implementing a digital attendance system can be minimized, allowing the goal of improving ASN discipline to be achieved optimally.

**CONCLUSIONS**

This study reveals that using the *SIADAB* application for a digital attendance system in *BKPSDM* Bolaang Mongondow Timur significantly enhances the discipline of the state civil apparatus (*ASN*). Attendance data reflects consistently high attendance rates following the

system's implementation, with most employees reporting attendance levels over 95%. This outcome suggests that technology can effectively promote *ASN* compliance and professionalism in their duties. Employee feedback regarding the digital attendance system has been overwhelmingly positive. All respondents indicated the system is user-friendly, transparent, and fosters improved work discipline. Although some technical challenges persist, particularly concerning connectivity and personal devices, users generally respond well to the system. This highlights the necessity of training support and infrastructure readiness as crucial factors in technology implementation within the bureaucracy.

From a managerial perspective, the digital attendance system facilitates data-driven decision-making, encompassing performance evaluation and planning for human resource requirements. Leaders recognize that the accessibility of real-time attendance data simplifies the identification of issues and enables the prompt and measurable implementation of corrective actions. Therefore, it may be concluded that the digital attendance system enhances *ASN* discipline and reinforces a contemporary, accountable, and technology-driven personnel management framework. To ensure the sustainability of this innovation moving forward, it will be essential to bolster the system through integration and the enhancement of technical capacities.

## REFERENCES

Alfan, N. W., Herman, M., & Fibriyanita, F. (2021). Manajemen kinerja aparatur sipil negara di Kantor Kecamatan Tabunganen Kabupaten Barito Kuala. *Journal Article*.

Badan Kepegawaian Negara. (2022). *Laporan tahunan kinerja Pegawai Negeri Sipil*.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.

Gerungan, F., Wenas, F., & Rumagit, M. (2024). Penerapan absensi digital dalam meningkatkan disiplin kerja ASN di Sekretariat DPRD Kota Manado. *Jurnal Administrasi Publik, 10*(1), 45–56.

Gerungan, G., Lengkong, V. P. K., & Trang, I. (2024). Analisis absensi digital dalam meningkatkan disiplin kerja pegawai di Sekretariat DPRD Kota Manado. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi, 12*(4), 401–410. https://doi.org/10.35794/emba.v12i4.58927

Hudri, S., Yamin, A., & Khadafie, M. (2024). Efektivitas penerapan aplikasi absensi online berbasis Android untuk meningkatkan disiplin kerja pegawai (Studi kasus pada Badan Kepegawaian dan Pengembangan Sumber Daya Manusia Kabupaten Sumbawa Barat). *JIIP - Jurnal Ilmiah Ilmu Pendidikan, 7*(1), 100–108. https://doi.org/10.54371/jiip.v7i1.3626

Kantor Kita. (2025). *Tantangan dan strategi implementasi sistem presensi elektronik di pemerintahan daerah*.

Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. (2021). *Peta jalan reformasi birokrasi 2020–2024*.

Kurniawan, D. (2020). Faktor-faktor yang mempengaruhi keberhasilan implementasi sistem informasi manajemen kepegawaian. *Jurnal Sistem Informasi dan Manajemen, 3*(2), 76–89.

Lembaga Administrasi Negara Republik Indonesia. (2022). *Reformasi birokrasi tematik dan*

*manajemen kinerja ASN.*

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry.* SAGE Publications.

Patton, M. Q. (2015). *Qualitative research & evaluation methods* (4th ed.). SAGE Publications.

Pratiwi, D. (2018). Analisis efektivitas penggunaan e-presensi terhadap disiplin pegawai di Pemerintah Kota Semarang. *Jurnal Administrasi Publik, 6*(2), 123–135.

Rahmawati, L. (2023). Digitalisasi absensi dan dampaknya terhadap efektivitas kinerja pegawai. *Jurnal Manajemen dan Teknologi Informasi, 11*(2), 112–123.

Rawinarno, T., Setyoko, H., Widiarto, A., & Alynudin, S. (2023). Manajemen kinerja aparatur sipil negara (ASN) berbasis bekerja dari rumah (work from home). *NIAGARA Scientific Journal, 15*(1). https://doi.org/10.55651/juni.v15i1.21

Saputra, T. D. (2023). Efektivitas penerapan sistem merit dalam penyelenggaraan manajemen aparatur sipil negara pada instansi pemerintah (Studi kasus Kementerian Hukum dan HAM Republik Indonesia). *Syntax Literate: Jurnal Ilmiah Indonesia, 8*(3). https://doi.org/10.36418/syntax-literate.v8i3.11505

Sari, D., & Ramadhan, R. (2020). Efektivitas penggunaan teknologi digital dalam sistem absensi Pegawai Negeri Sipil. *Jurnal Reformasi Administrasi, 7*(2), 112–125.

Subekti, A., & Utomo, H. (2022). Pengaruh sistem absensi digital terhadap disiplin dan kinerja Pegawai Negeri Sipil. *Jurnal Administrasi Publik, 9*(1), 33–45.

Sukmawati, N., Rahim, A., & Lestari, H. (2023). Evaluasi penerapan sistem absensi online di instansi pemerintah daerah. *Jurnal Ilmu Pemerintahan, 9*(3), 233–245.

Sukmawati, Y. R., Nasir, M., & Ramayana, W. S. (2023). Implementasi absensi online terhadap peningkatan disiplin kerja di sektor publik: Studi Badan Keuangan Daerah Konawe Selatan. *PAMARENDA: Public Administration and Government Journal, 4*(2), 22–31. https://doi.org/10.52423/pamarenda.v4i2.40

Wahyuni, N. (2024). Pengaruh sistem absensi digital dan motivasi kerja terhadap disiplin pegawai. *Jurnal Ilmu Manajemen dan Bisnis, 12*(1), 89–100.

Yuningsih, N. (2018). Penerapan manajemen kinerja pegawai di instansi pemerintah. *Jurnal Pengembangan Wiraswasta, 19*(2). https://doi.org/10.33370/jpw.v19i2.133