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EFFECTIVENESS OF THE IMPLEMENTATION OF THE EMPLOYEE ABSENCE INFORMATION SYSTEM (SIAP) IN IMPROVING EMPLOYEE WORK DISCIPLINE (Study at the Food Security, Agriculture, and Fisheries Service of Probolinggo City)

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ABSTRACT

This study examines the effectiveness of the implementation of the Employee Attendance Information System (SIAP) in improving employee work discipline. The focus of this study is based on the effectiveness theory developed by Sutrisno (2007) which consists of five indicators and there are supporting and inhibiting factors. With this system, it provides convenience in the process of employee attendance in conducting absences or presence during working hours. However, in practice, there are still obstacles related to the implementation of SIAP in the work environment of the Food Security, Agriculture, and Fisheries Service. This study uses a qualitative approach with a purposive sampling data collection technique with the criteria of informants who are users of the SIAP application. Data were obtained through observation, interviews, and documentation in obtaining data in the field and analyzed through data reduction, data presentation, and drawing conclusions. The results of the study indicate that the implementation of the SIAP application is considered quite effective, referring to the effectiveness theory with five indicators by Sutrisno (2007) through program understanding, on target, on time, achievement of goals, and real change. From the informant's statement, the application of the SIAP application in employee attendance is considered quite effective, this is proven by the achievement of timely indicators that assess the SIAP application sometimes has obstacles such as a system that often errors. In addition to supporting factors, there are also inhibiting factors such as accuracy in the accuracy system of the application in adjusting coordinate points when taking attendance. From the research conducted by researchers, it can be concluded that the application of the SIAP application is considered quite effective because deficiencies are still found in the SIAP application. Thus, the recommendations provided by researchers can be used as a means or improvement to the SIAP system or application with the aim of increasing employee work discipline.

Keywords: Effectiveness; Employee; Attendance; Information System.

INTRODUCTION

The issue of civil servant attendance discipline continues to be a major concern for the central government at the national level. Numerous cases of attendance manipulation have been reported in various regions, ranging from the practice of entrusting attendance using other people's fingerprints, as occurred in Sarolangun Regency (Harahap, 2025), to the phenomenon of civil servants not carrying out their duties for months or even years, as reported by the Regent of Lingga (Batam Pos, 2025). These facts indicate that existing attendance systems, such as manual and electronic fingerprint-based systems, still have the potential for fraud. The impact is not only limited to internal organizations, but also impacts public trust in government institutions and hinders the provision of effective and responsive public services.

In response to this issue, the government has implemented digital transformation in the personnel process through Minister of Administrative and Bureaucratic Reform Regulation Number 59 of 2020 concerning the Electronic-Based Government System (SPBE). This policy encourages all government agencies to integrate digital technology into administrative processes, including employee attendance recording systems. The hope is that implementing a digital attendance system can minimize manipulation that typically occurs in conventional systems and can increase transparency and effectiveness of ASN. However, the implementation of digital governance in the field does not always run smoothly. This is due to several obstacles, such as a lack of technological infrastructure, resistance to traditional work cultures, a lack of digital literacy among employees, and a lack of data security, which remains a problem in many regions.

Through the development of the Employee Attendance Information System (SIAP), the Probolinggo City Government has taken concrete steps towards a digitalization policy. This system was developed by the Communication and Informatics Office in accordance with Probolinggo Mayoral Regulation No. 103 of 2020 which regulates the Implementation of Civil Servant Working Days and Hours within the Probolinggo City Government, as an instrument for digitally integrated ASN attendance monitoring. With real-time GPS-based check-in and check-out features, automatic notifications for personnel discipline, attendance data encryption, and a dashboard that is easily accessible by leaders, the SIAP application is designed to replace the manual attendance system that is still widely manipulated. This innovation specifically addresses the need for high-level work flexibility, a need that is particularly relevant for technical offices whose employees often work outside the office.

Employee attendance discipline is a fundamental indicator for measuring the effectiveness of performance in government organizations. Missing attendance and not being present on time not only undermine the professionalism of State Civil Apparatus (ASN) but also negatively impact the quality of public services received by the public. However, the phenomenon of attendance manipulation remains a serious problem that has not been fully resolved. Missing attendance, unexcused absences, and physical presence without performing duties are examples of disciplinary behavior that consistently reduce employee productivity and accountability. These conditions demonstrate that absenteeism is not merely an administrative issue, but encompasses more comprehensive aspects such as integrity, work culture, and the effectiveness of overall government governance.

The urgency of this research is further strengthened considering the implementation of SIAP in the Food Security, Agriculture, and Fisheries Service of Probolinggo City with its complex and unique work environment challenges. This service has a high field duty, with workers spread across various locations such as agricultural land, fisheries centers, and rural areas that do not always have stable internet access. This situation shows that the effectiveness of digital systems cannot only be seen from a technical perspective, but also needs to consider organizational integration and the ability to respond to changes in the work system. Employee absences that are not handled in this way have the potential to damage strategic programs in the field of food security and agriculture, negatively impacting the welfare of the general public. There is a significant gap between expectations regarding the implementation of a digital attendance system and the reality of its effectiveness in the field, especially in institutions or agencies with dominant characteristics of field work. This method aims to analyze the effectiveness of the Civil Servant Attendance Information System (SIAP) in improving the work discipline of Civil Servants in the Food Security, Agriculture, and Fisheries Service of Probolinggo City. The analysis was conducted by referring to Sutrisno's theory (20070 with five

indicators, namely Program Understanding, Right on Target, Timely, Achievement of Goals and Real Change. This study aims to assess the effectiveness of the implementation of the SIAP (Employee Attendance Information System) application as a form of e-government in improving employee work discipline within the Probolinggo City Government, especially in the Department of Agriculture, Food Security and Fisheries.

RESEARCH METHODS

This study uses a qualitative approach, where the researcher acts as a key instrument in examining the natural conditions of the object (Sugiyono, 2015:15). This approach was chosen to gain a deep understanding of the effectiveness of the implementation of the Employee Attendance Information System (SIAP) in improving employee work discipline at the Food Security, Agriculture, and Fisheries Service of Probolinggo City. The analysis was conducted using five indicators of effectiveness theory according to Sutrisno (2007) in Kharimah et al. (2023), namely program understanding, timeliness, on-target, goal achievement, and real change.

The data sources consist of primary data obtained through semi-structured interviews, field observations, and questionnaires, as well as secondary data sourced from official documents, scientific journals, and publications of related agencies. The determination of informants used a purposive sampling technique with the criteria of direct involvement in the implementation of the SIAP system, including the Head of Personnel, SIAP System Admin Operators, and Civil Servants as application users. Data collection was carried out through triangulation, namely a combination of observation, in-depth interviews, and documentation (Sugiyono, 2019: 332), with instruments in the form of interview guidelines and observation guidelines. Data analysis was carried out inductively qualitatively through the process of understanding, reviewing, and interpreting all data obtained in the field to comprehensively answer the research focus.

RESULTS AND DISCUSSION

Program Understanding of SIAP Implementation in Improving Employee Work Discipline

Program understanding is an indicator of effectiveness that measures the extent to which program implementers and targets understand the intent, objectives, and how the program works. Without a good understanding, the program will not run effectively, no matter how well designed. Head of Personnel, Ms. Hasanatul Fahmi, one of the informants, stated that the SIAP application was initially developed as a solution for employee attendance during the Covid-19 pandemic, when the work system changed to WFH (Work From Home). Under these conditions, manual attendance using fingerprints still existed, but was less effective because it required additional processes. If employees used fingerprints, attendance data was not immediately recorded in the SIAP system and had to first confirm with the operator to have their status changed to present. Conversely, if using the SIAP application, attendance data was directly integrated automatically into the system, making it more efficient and practical.

Mrs. Lukik, a SIAP operator at the Probolinggo City Food Security, Agriculture, and Fisheries Service, explained that in terms of mechanism, attendance can be done in two ways, namely using fingerprints or directly through the SIAP application. However, the use of fingerprints is considered less practical because it requires re-confirmation with the operator so that attendance data can be recorded in the system. On the other hand, attendance through the application is more efficient because it is immediately saved automatically without the need for additional processes. The SIAP system also functions as an employee discipline monitoring tool. Operators can easily monitor the attendance data of all employees. In terms of ease of use, SIAP also supports remote attendance. In its implementation, the coordinates of the activity location must be determined in advance, for example when there is a meeting or assignment outside the office.

The next informant, an employee or user of the SIAP application, stated that based on interviews, the application frequently experiences system errors. When this occurs, operators typically provide information via a WhatsApp group. As a temporary solution, users can check in using their fingerprints in the administration section. Once the system returns to normal, users must confirm with the operator to update their attendance status. A "green" status indicates that the attendance has been recorded in the system, while a "gray" status indicates that the attendance data has not been entered or verified.



Figure 1. SIAP Application Presence Display

Right on Target for the Implementation of SIAP in Improving Employee Work Discipline

"On target" indicates that the desired outcome is achieved or realized, and the SIAP application is considered to have been designed according to employee needs. Available features, such as the agenda menu for recording daily activities, are considered to have clear functions and uses, making it easier for employees to manage work activities while supporting the attendance monitoring process. This demonstrates that the SIAP system functions not only as an attendance tool but also as a monitoring instrument that increases transparency among employees.

From an operator perspective, the SIAP system has been proven to improve the efficiency of attendance data management through automated data integration. Although occasional technical glitches still occur, forcing operators to manually recapitulate, these conditions do not significantly diminish the system's overall benefits. The results of a questionnaire distributed to employees also supported this finding, with the majority of respondents stating that the SIAP system had a positive impact on improving work discipline.

Timely Implementation of SIAP in Improving Employee Work Discipline

The existence of these strict time standards demonstrates that the attendance information system has been designed to encourage employees to be more disciplined in their punctuality. Furthermore, the increase in on-time attendance records in the system indicates that the implementation of the attendance information system has had a positive impact on employee time discipline at the agency.

The researcher also conducted an interview with an informant who is a SIAP Operator, Ms. Lukik Indrawati who stated, "The implementation of the SIAP system provides significant convenience in the process of recapitulating attendance data. Operators said that preparing reports is faster because the system automatically provides the necessary data, including calculating the percentage of employee attendance. Thus, operators no longer need to manually recapitulate data one by one before submitting reports."

The results of an interview conducted by researchers with an employee of the Probolinggo City DKPPP, Dwi Setyawan, "During the online attendance system such as SIAP, lateness has become rare. This is because attendance can be done remotely, but is still limited by a certain radius. This means that users can only take attendance if they are within the specified location. If they are outside the radius, then attendance cannot be done. With this rule, users tend to be more disciplined in arriving on time and being in the appropriate location, so that cases of lateness can be minimized." However, findings in the field are different, there are obstacles such as disruptions to the application or system so that sometimes users or employees do attendance as usual via finger, this actually takes a lot of time. because they are still queuing with other employees.

Achieving the Goals of Implementing SIAP in Improving Employee Work Discipline

Every work program designed basically has a goal set from the beginning of planning. The goal achievement indicator is used to assess whether the results obtained after the program is implemented have met the previously determined targets, whether they have not yet met the expected expectations. Based on the results of interviews conducted by researchers, the informant who is the Head of Personnel provided information, "The SIAP attendance system has been equipped with a

sanction mechanism in the form of a deduction of 4% of the Employee Income Supplement (TPP) for employees who experience accumulated lateness of up to 60 minutes. This policy has proven effective in encouraging employee discipline, as reflected in the achievement of an attendance rate of 92% in March."



Figure 2.
Source: Probolinggo City DKPPP Employee Absence Data for March 2026

However, the system implementation still faced technical challenges in the form of disruptions to the application and employee devices. As a solution, the agency provided an alternative fingerprint attendance system in the Administration section, with a confirmation mechanism for operators to adjust attendance status within the system. In addition to improving attendance discipline, the implementation of the SIAP system also contributed to the achievement of employee performance burdens, which generally met established targets. Therefore, this system is considered to have a broader positive impact on overall employee performance.

Real Changes in the Implementation of SIAP in Improving Employee Work Discipline

The implementation of a program certainly looks at the comparison between before the program was implemented or after the program was completed, thus the implementation can see from the changes that occurred whether there were changes that were felt or not. Indicators of real change are used to assess the extent to which a program brings impacts that can be directly felt by its users, both before and after the program is implemented. In the context of the implementation of the SIAP attendance system, real changes can be identified from three groups of informants, namely the head of personnel, operators, and employees as direct users of the system.

The Head of Personnel stated that the implementation of the SIAP system brought significant changes, especially in the process of recapitulating personnel data, which has become easier and more efficient compared to the previous method. This statement is in line with the opinion of the SIAP system operator who revealed that preparing attendance reports has become much easier since the system was implemented, because all attendance data is recorded automatically and accurately, so that data input errors that previously often occurred with the manual method can be significantly minimized. This finding is in line with the implementation of e-government aimed at increasing efficiency, effectiveness, and accuracy in managing government administration through the use of information technology.

However, operators also revealed technical challenges they faced, particularly when the system experienced prolonged disruptions, lasting days. In such situations, employees were forced to use fingerprint attendance as a temporary alternative. This situation demonstrates that reliance on digital systems requires reliable technical infrastructure support to ensure service continuity. From an employee perspective, the implementation of the SIAP system also brought about significant changes in disciplinary behavior, particularly in terms of punctuality in attendance. The consequence of deducting TPP for employees who miss the deadline serves as an effective driver in developing disciplined habits. This indicates that changes in employee behavior are not merely administrative in nature but also encompass aspects of motivation and responsibility in carrying out tasks.

Furthermore, informants emphasized the importance of developing additional features in the SIAP system, including a display of accumulated TPP deductions that can be directly monitored by employees. This proposal reflects the need for greater system transparency, allowing employees to

directly understand the consequences of their discipline levels and be encouraged to continuously improve their attendance behavior independently. Based on the interview process.

The tangible changes resulting from the implementation of the SIAP system are also reflected in the performance achievements of operators as informants. Based on employee performance report data submitted by Ms. Lukik as the SIAP Operator, employee performance has generally been well realized, supported by clear tasks and a balanced workload that makes it easier for superiors to identify the source of performance problems more objectively. This is reinforced by the achievement of an employee attendance rate of 100%, as a clear evidence of improved work discipline. The integration of the SIAP system with SIMPEG (Employee Management Information System) also plays a significant role because every delay and disciplinary violation is automatically documented, thus encouraging employees to be more disciplined due to the clear and data-based consequences.

Supporting and Inhibiting Factors for the Implementation of (SIAP) in Improving Employee Work Discipline

Based on interviews with the Head of Personnel and SIAP system operators, the successful implementation of the SIAP attendance system was supported by several key factors. First, the time efficiency resulting from the system's flexibility, which allows employees to take attendance without being tied to a specific location, making the attendance recording process more practical. Second, the system's simple design facilitates employee operation, while good system integration facilitates operators in recapitulating attendance data. Third, the agency's infrastructure support in the form of adequate internet access contributes to the smooth operation of the system as a whole. Fourth, the regular development of features such as location-based GPS and facial recognition further enhances the ease and accuracy of the attendance process. Thus, the combination of ease of use, clear regulations, and continuous technological innovation are important factors supporting the effectiveness of the SIAP system while improving employee work discipline.

In addition to supporting factors, the implementation of the SIAP system also faces several inhibiting factors that affect its effectiveness. From a technical perspective, system disruptions in the form of periodic errors are a major obstacle hindering the smooth running of the attendance process. In these situations, employees must confirm with the operator or use the fingerprint method as an alternative, increasing the operator's workload. Furthermore, employees often experience difficulties adjusting location coordinates, especially those working outside the office with unstable internet connections. From a human resources perspective, obstacles are found among older employees who are still adapting to the use of digital systems. This situation requires operators to actively participate in providing direct assistance to ensure the smooth running of the attendance process. The limited technical skills of some employees in properly operating the SIAP system features also contribute to the suboptimal use of the system as a whole. Therefore, inhibiting factors in the implementation of the SIAP system include three main aspects: technical constraints, limited human resources, and network disruptions. These three factors require serious attention through infrastructure improvements, increased user capacity, and the development of a more adaptive system to ensure the effectiveness of the SIAP system can be realized optimally and sustainably.

CONCLUSION

The implementation of the SIAP attendance system in the Department of Food Security, Agriculture, and Fisheries of Probolinggo City is classified as Quite Effective. This assessment is based on the fact that of the five indicators used as a reference, four indicators have been met well, while one indicator, namely Punctuality, has not been implemented optimally. referring to the theory of effectiveness developed by Sutrisno (2007) it can be concluded Based on the results of the analysis of all indicators of program effectiveness, it can be concluded, The four indicators that have been achieved include Program understanding, Target Accuracy, Goal Achievement, and Real Change. The program implementers have had an adequate understanding of the system mechanism, the program targets have covered all related parties, both employees and operators, the main objective of increasing attendance discipline and efficiency in managing attendance data has been achieved, and the implementation of this system has been proven to provide clear and measurable changes in terms of discipline, data management quality, and the effectiveness of employee performance monitoring. Meanwhile, the Punctuality Indicator remains suboptimal due to technical issues, such as

application errors and unstable internet connections, which can occasionally hinder the attendance process and reporting by operators. Therefore, although the SIAP attendance system has had a significant positive impact on employee attendance management and performance, improvements to the technology infrastructure and regular system maintenance are still needed to achieve comprehensive and sustainable effectiveness.

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