

Effectiveness *SIAP* on performance civil servants mediated discipline at Bandung environment service

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ABSTRACT

The purpose of this study was to examine and analyze the effect of the effectiveness of the application SIAP (Sistem Informasi Absensi Pegawai) on the performance of Civil Servants mediated by variable discipline. This study uses a quantitative approach in the form of descriptive, namely research that emphasizes the analysis of numerical data that is processed using statistical methods. The sample used in this study is using the Slovin formula with a total sample of as many as 55 people. Data processing in the study uses an analysis track or (path analysis). The results of the analysis show that there is no significant effect between the effectiveness of the application attendance electronic (SIAP) on the performance of the employee. The Effectiveness of application attendance electronic (SIAP) shows a positive and significant influence to discipline work. Work discipline can mediate connection Among the effectiveness of using the application (SIAP) with performance employees. This thing shows application attendance through the application (SIAP) does not take effect by direct to performance apparatus at the Bandung City Environment Service, however, with a presented application (SIAP) this makes employees more discipline in access to attendance. Discipline very influences the performance of employees and the organization.



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INTRODUCTION

The digital revolution has changed a person's perspective on living a very advanced life today (Morrar et al., 2017). The digital revolution has had to transform many areas of human life, including the world of work. This era of the digital revolution has also changed the way organizations operate, both in managing their organizations, designing their organizations, and managing their human resources. Based on Mc Kinsey's research, it is known that 60% of jobs will be automated, and 30% of jobs will be replaced by using high-tech machines (Chui, 2017). This technological change can make it easier for leaders to coordinate the work order of employees more effectively and efficiently.

Advances in technology and public understanding of public services are increasing (Osborne et al., 2013). Currently, the community is increasingly demanding more for the services provided and is constantly monitoring, straightening, and pushing the pace of the government. This digital transformation is not limited to changing services to become completely online but more than how integrating all service areas to produce changes in business processes and create "value" that gives satisfaction to service users. The United Nations through the "E-Government Survey 2020 " reports that Indonesia is in the ranks of the level of implementation of the Government-Based System Electronics and is ranked 88th out of 193 countries (Maulana et al., 2022; Novitasari et al., 2022). It shows that digitalization in Indonesia in providing services still needs to be improved and is an important thing to note (Tayibnapis et al., 2018). The government sued required to be responsive to people's expectations and global challenges triggered by changes and advances, especially in the technology sector.

The government is developing digital devices that can support employee mobility to facilitate all activities and collaboration between employees in carrying out operations and providing services to the community. Current developments require that the implementation of work and services in the government environment can be done more flexibly and served from anywhere. It also places demands on apparatus resources as the driving force for all government activities to further improve their quality

in adapting to the times and being more literate in the digital world, and improving the performance of the apparatus so that they are more optimal and of high quality.

In the face of this era, government activities, both central and local, require quality apparatus performance. Civil Apparatus has to carry out public policies following applicable laws and regulations, to provide professional and quality services to the public. As regulated in Law Number 5 of 2014 concerning State Civil Apparatus, Civil Apparatus must comply with the rules and code of work ethics and the performance results of the Civil Apparatus must be accountable to the public. Quality public services are also a demand from the community. The apparatus bureaucracy plays a key role as a driving force in providing the best service, it requires high apparatus performance (Rose et al., 2015).

High performance can be reflected in a sense of responsibility for the assigned tasks as well as a high level of discipline. One of the disciplinary attitudes that must be adhered to is discipline towards attendance. Bandung Mayor Regulation Number 677 of 2016 concerning the Discipline of the Presence of State Civil Apparatus in the Bandung City Government Environment states that the Discipline of Attendance is the ability of employees to come to work and comply with working hours according to employee obligations. Working Hours are the mandatory working hours for Civil Apparatus Employees of at least 37.5 (thirty-seven point five) hours per week. Clause 2 contains rules regarding the provisions of working days and working hours of State Civil Apparatus.

Recording employee attendance is one of the important factors in human resource management. Complete and accurate information regarding the presence of an employee can determine a person's work performance, salary or wages, and productivity, as well as determine the progress of the agency or institution in general (Cahyana, 2015 in Dhanurdhara et al, 2022) Recording employee attendance is an effort to improve employee work discipline.

Employee work discipline emphasizes awareness efforts as well as shaping employee behavior to comply with the rules or regulations that have been previously prepared by the office. Awareness and formation of this behavior will form harmony between the individual goals of each employee with the goals of the agency. Agency management must be able to make policies to encourage the improvement of employee work discipline. The first step is to arrange work regulations as a frame of reference for employees. Then apply supervision to form a disciplined character and the last is to cultivate work discipline among the employees themselves. Enforcement of work discipline can not be left to employees alone so an office must have a pattern of discipline development for employees.

Work discipline is a tool used by leaders to communicate with employees so that they are willing to change behavior as well as an effort to increase harmony and one's willingness to obey all applicable office rules and social norms.

To increase employee discipline, the Bandung City government implements an Electronic Attendance system. The Bandung City Personnel and Human Resources Development Agency (BKPSDM) launched an Online Attendance Application accessible via Smartphone. This application is named SIAP (Employee Attendance Information System). SIAP application is designed to replace fingerprint attendance.

The SIAP application is made to improve fingerprint attendance weaknesses (Sikumbang et al., 2020). When the fingerprint attendance data can be edited the SIAP application is present to close that opportunity, because the SIAP application uses triple verification, namely:

1. GPS (Global Positioning System)
2. Selfie (Self Identification)
3. Verification of direct supervisor

With the presence of this SIAP application, the government aims to create a more professional, responsive, and transparent system. Employees are required to fill in attendance through the SIAP application. Discipline can encourage members of the organization to meet the demands of the provisions of the regulations that will lead to the achievement of employee work performance.

An attendance system is a form of discipline supervision. The information system for the presence of apparatus in government agencies is still not optimal. There are still several violations: leaving the office during working hours after taking attendance without the knowledge of superiors, coming and going home not according to working hours, and untimely work breaks. It usually happens in secret and if unchecked will have an impact on decreasing employee performance.

By using the SIAP application, attendance recapitulated once a month can easily find out the violation of working hours or delays committed by the apparatus during work because using the SIAP application it is difficult to manipulate data.

Discipline is a condition or attitude of respect that exists in employees towards the provisions and rules of an organization or company (Soetrisno, 2016). In addition, Hasibuan (2013) states that discipline is the key to the success of an organization in achieving goals. Bandung Mayor Regulation Number 677 of 2016 concerning the Discipline of the Presence of State Civil Apparatus in the Bandung City Government Environment states that the Discipline of Attendance is the ability of employees to come to work and comply with working hours according to employee obligations.

According to Simamora (2012), the purpose of disciplinary action is to ensure that employee behavior is consistent with the rules set by the agency. The purpose of work discipline is that employees comply with all regulations and policies that have been set, can carry out their work as well as possible and can provide maximum service, can use and maintain facilities and infrastructure for office goods and services as well as possible and employees can obtain a high level of performance. Good discipline describes the magnitude of a person's sense of responsibility for the tasks assigned to him, this encourages work morale (Aguinis & Glavas, 2019).

Setiawan (2013) states that the indicators of employee work discipline consist of being on time, prioritizing the percentage of attendance, obeying the rules of working hours, prioritizing effective and efficient working hours, being skilled in their field of work, high morale, having a good attitude, being creative and innovative at work. The increase in work discipline will also improve employee performance. Work discipline is very influential if the better the level of work discipline obtained, the more employee performance will increase. Based on research by Tanjung (2017) it is proven that work discipline has a significant and positive effect on the performance of the employees of the Medan City Social and Manpower Office.

Based on this phenomenon, the researcher wants to provide a comprehensive picture of the effectiveness of the use of the SIAP application on the performance of the State Civil Apparatus mediated by work discipline within the Bandung City Environment Service. The Bandung City Environment Service is the agency that carries out government affairs in the environmental and sub-waste affairs fields. In 1992 this agency was named the Environmental Section (BLH) and the Regional Environmental Impact Management Agency (BAPEDALDA). In 1998, BPLH merged with the Regional Environmental Impact Management Agency for the Regional Municipality Level II Bandung (BAPEDALDA). 2001 Change of BAPEDALDA to Environmental Management Agency (BPLH) Bandung City. In 2007 there was a streamlining of the organizational structure and its name remained the Environmental Management Agency. In 2017 the City Environment Service Bandung change from BPLH Bandung as a follow-up to the issuance of Bandung City Regional Regulation Number 8 of 2016 concerning Formation and Structure of Bandung City Regional Apparatus and Bandung Mayor Regulation Number 1390 of 2016 concerning Position, Organizational Structure, Duties, and Functions and Work Procedures of the Office Environment and Hygiene (DLHK) Bandung City.

From the discovery of these cases, this study aims to determine the effectiveness of the application of attendance through the SIAP application on the work discipline of the state civil apparatus and whether it will affect the performance apparatus. So it is hoped that this research will provide a role in the development of apparatus performance and work discipline will produce superior quality Human Resources.

RESEARCH METHODS

This study uses a quantitative approach in the form of descriptive, namely research that emphasizes the analysis of numerical data that is processed using statistical methods. The purpose of descriptive quantitative research is to systematically describe the facts or characteristics of a particular population or a particular field factually and accurately.

The instrument used in this research is a questionnaire containing data describing the level of employee performance mediated by discipline from the application (SIAP). Three indicators as reference questions in the research questionnaire. The first indicator respondents were asked to provide self-perceptions regarding the effectiveness of the application of Electronic Attendance from the application (SIAP), and the second indicator respondents were asked to provide self-perceptions about work discipline as well as regarding rules and disciplinary violations from the application of electronic

attendance from the use of applications (SIAP). The last indicator of respondents was asked to provide self-perception of performance after the implementation of electronic attendance using the application (SIAP).

The research location at the Bandung City Environmental Service is located on Jalan Sadang Tengah No.4-6, Sekeloa, Coblong District, Bandung City. The population in this study were all government employees in the Bandung City Environmental Service, as many as 64 people. According to Sugiyono, (2017) Population is a generalization area consisting of objects or subjects that have quality and meet certain characteristics that have been determined by the researcher to be a reference for learning and then drawing conclusions. According to Sugiyono (2013: 118), The sample is part of the number and characteristics possessed by that population. The sampling technique used in this study is random sampling. Random sampling is a type of sampling of the probability of each person throughout the target population who has an equal chance of being selected, however, this sample selection was done randomly and not sequentially. The number of samples used in this study used the Slovin formula so that the number of samples was 55 people.

According to Djaali (2008:28), The Likert scale is a scale that can be used to measure the attitudes, income, and perceptions of a person or group of people regarding a symptom or group of people about an educational phenomenon. With the Likert scale, the variables to be measured are detailed into variable indicators. This study uses three variables as research indicators. These variables are the independent variable, the dependent variable, and the mediating variable.

Nanang Martono (2015:360) defines the independent variable as the variable that affects other variables or produces effects on other variables, generally in the order of time that occurs first. The Independent variable of This research is the effectiveness of E-Absensi (SIAP) (X). While the dependent variable or dependent according to Sugiyono (2015:39) defines that the dependent variable is often referred to as output variables, criteria, or consequent. The dependent variable is a variable that influences or becomes the result, because of the independent variable. In this research. The dependent variable used is employee performance (Y). The last variable is variable mediation. According to Tuckham (in Sugiyono, 2014) the mediation variable is a variable that theoretically affects the relationship between the independent variable and the dependent variable becomes an indirect relationship, and cannot be observed and measured. The mediating variable used in this study is work discipline (M). To seek the influence between variables used a multiple regression approach with moderate/ intervention. Where is the relationship between the E-Attendance variable and the performance indirect mediated by disciplinary variables, described as follows:

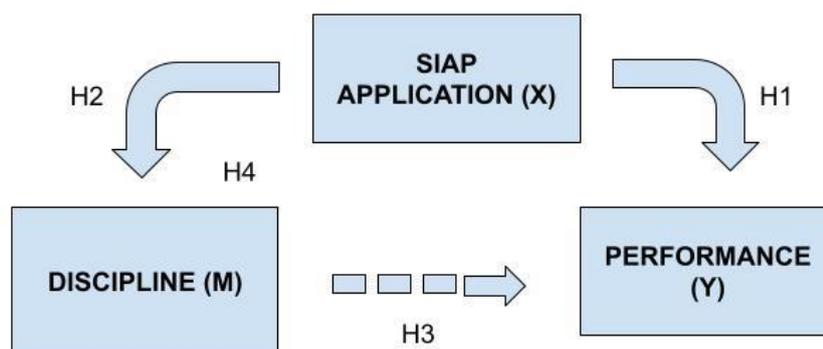


Figure 1 Conceptual Framework

The hypotheses to be tested in this study are:

H1: Effect of E-Attendance (SIAP) on Employee Performance

H2: Effect of E-Attendance (SIAP) on Work Discipline

H3: The Effect of Work Discipline on Employee Performance

H4: The Effect of E-Attendance (SIAP) on Employee Performance through the Mediation of Work Discipline.

RESULTS AND DISCUSSION

Research Instrument Test

A valid and reliable measuring instrument will provide accurate information about the respondents who are subject to the measurement/test. Accurate information is used to make appropriate conclusions and decisions. So a study needs to test the validity and reliability to get valid and reliable results. The following are the results of the validity and reliability test of the research instrument using the SPSS program:

Table 1 Validity and Reliability Test

No.	Variable	Question Items	Validity		Realibility	
			Pearson Correlation	Ket	Alpha Crabach	Ket
1	Effectiveness of E-Absence (SIAP) (X)	X1	0,711	Valid	0,858	Reliable
		X2	0,545	Valid		
		X3	0,643	Valid		
		X4	0,769	Valid		
		X5	0,611	Valid		
		X6	0,770	Valid		
		X7	0,713	Valid		
		X8	0,785	Valid		
		X9	0,628	Valid		
		X10	0,475	Valid		
2	Employee Performance (Y)	Y1	0,668	Valid	0,915	Reliable
		Y2	0,677	Valid		
		Y3	0,769	Valid		
		Y4	0,771	Valid		
		Y5	0,827	Valid		
		Y6	0,725	Valid		
		Y7	0,838	Valid		
		Y8	0,766	Valid		
		Y9	0,795	Valid		
		Y10	0,619	Valid		
		Y11	0,676	Valid		
3	Work Discipline (M)	M1	0,544	Valid	0,888	Reliable
		M2	0,769	Valid		
		M3	0,850	Valid		
		M4	0,780	Valid		
		M5	0,699	Valid		
		M6	0,867	Valid		
		M7	0,698	Valid		
		M8	0,680	Valid		
		M9	0,549	Valid		
		M10	0,726	Valid		

Source: SPSS data processing results (2022)

Based on the results in table 1 above, the significance level of the R table is = 0.2656 with 55 respondents, this the correlation coefficient value shows greater than the R table with Cronbach's alpha coefficient value above 0.7 then the instrument variable is declared valid and reliable, and feasible to be used as an instrument study.

Interaction Test

Table 2 F-test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	369,927	2	184,963	10,399	.000 ^b
	Residual	924,873	52	17,786		
	Total	1294,800	54			

a. Dependent variable : Employee performance

b. Predictors : (Constant) : Employee dicipline, effectiveness of E-Absensi

Source: SPSS data processing results (2022)

From the table 2 above, it can be concluded that the sig value of 0.000 is smaller than 0.05 (0.000 < 0.05), which means that the E-Attendance Effectiveness variable for the SIAP application and Employee Discipline simultaneously affect Employee Performance.

For the calculation, if data is done by regression analysis using SPSS 25.0 and the following results are obtained.

$$\text{Model 1 : } M = \beta_1 X + e \quad (1)$$

Table 3 Model 1

Model		Unstand. Coefficients		Stand. Coeff.		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	16,977	3,954		4,293	.000
	Employee dicipline	.647	,087	.714	7,424	.000

a. Dependent Variable: Employee dicipline

Source: SPSS data processing results (2022)

$$\text{Model 2 : } Y = \beta_1 X + \beta_2 M + e \quad (2)$$

Table 4 Model 2

Model		Unstand. Coefficients		Stand. Coeff.		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	21,812	6,424		3,395	.001
	Effectiveness of E-Absensi	-,089	,174	-,085	-,0509	,613
	Employee dicipline	.680	,192	.592	3,537	.001

Source: SPSS data processing results (2022)

From the results above in the calculation of model 1 and model 2, it can be seen the magnitude of the direct effect, indirect effect, and total effect between variables.

The results of the coefficient of total determination:

$$R^2_m = 1 - (1 - 0,51)(1 - 0,286) \quad (3)$$

$$R^2_m = 1 - 0,35 \quad (4)$$

$$R^2_m = 0,65 \quad (5)$$

From the results of the coefficient of determination test above, it shows a value of 0.65 and it can be concluded that the information contained in the data of 65% can be explained by the model. The remaining 100% - 65% = 35% others are influenced by other variables outside of this study.

Theory carried out in this study, namely the validity test on each path for direct influence is the same as regression, using the p-value of the t-test, namely testing the variable regression coefficients partially standardized with the effectiveness of the application of electronic attendance using the application (SIAP) (X) to discipline employee work (M) is 7,424 with a significance level of 0.000, and the effectiveness of the application of electronic attendance using the application (SIAP) (X) on employee performance (Y) is -0.509 with a significance level of 0.613, work discipline variable (M) on employee performance (Y) of 3.537 with a significance level of 0.001.

Discussion

Effect of E-Absensi Application (SIAP) on Employee Performance

Based on the results of the variable regression coefficient testing for the hypothesis of the effectiveness of the application of electronic attendance applications (SIAP) on employee performance, the results obtained are $t_{count} - 0,509 < t_{table} 2.007$ It means that the application of electronic attendance applications (SIAP) has no significant effect on employee performance with a significance value of $0.613 > 0.05$. So the effectiveness of the application of attendance through the SIAP application has no direct and insignificant effect on the performance of the apparatus at the Bandung City Environmental Service. Increased employee performance can be influenced by other variables such as work motivation, work environment, and other variables that are not discussed in this study.

The Effect of Electronic Attendance (SIAP) on Work Discipline

Based on the results of the variable regression coefficient testing for the hypothesis of the effectiveness of the application of electronic attendance applications (SIAP) on work discipline, the results obtained are $t_{count} 7,424 > t_{table} 2.007$ It means that the application of electronic attendance applications (SIAP) affects work discipline with a significance value of $0.000 < 0.05$. So the effectiveness of the application of attendance through the SIAP application has a positive and significant effect on the work discipline of the apparatus at the Bandung City Environmental Service. The application of SIAP attendance application can make it easier for employees to access attendance via smartphones, make it easier for operators to retrieve complete information regarding the presence of the apparatus, and the SIAP application it difficult to manipulate data. This makes employees more disciplined in accessing attendance. Then the more effective the application of electronic attendance (SIAP), the higher the work discipline of the apparatus.

The Influence of Work Discipline on Employee Performance

Based on the results of the variable regression coefficient testing for the work discipline hypothesis on employee performance, the results obtained are $t_{count} 3,537 > t_{table} 2.007$ It means that work discipline has a significant effect on employee performance with a significance value of $0.001 < 0.05$. Then work discipline has a positive and significant effect on employee performance apparatus at the Bandung City Environmental Service. These results are in line with research Dhanurdhara et al. (2022) which states that the work discipline has a positive and significant effect on the performance of civil servants at the government Denpasar City Industry and Trade. Employee discipline is the nature of an employee who consciously obeys the rules and certain organizational regulations (Nica, 2013). Discipline greatly affects employee performance and organization. The more disciplined, the higher the employee's work productivity and performance company.

The Effect of E-Attendance (SIAP) on Employee Performance through Mediation of Work Discipline

Based on the results of empirical testing for the electronic absenteeism hypothesis (SIAP) on employee performance through work discipline mediation, the results obtained are $Z_{count} 3,08 > Z_{table} 1,96$ and p Value of $0.002 < 0.05$ means that work discipline can mediate the relationship between the effectiveness of using the SIAP application and employee performance. Presence, This SIAP attendance application makes it easier for employees to access attendance, too the difficulty of manipulating data makes employees more disciplined in doing attendance presence. This indirectly increases employee discipline at work resulting in better employee performance. So, the more effective the implementation of SIAP applications is increasing as well as the work discipline of the apparatus which indirectly can improve employee performance.

CONCLUSION

The results of the first hypothesis analysis show that there is no significant effect between the effectiveness of the application of electronic attendance applications (SIAP) on employee performance can be seen from $t_{count} -0,509 < t_{table} 2.007$ with a significance value of $0.613 > 0.05$. The results of the second hypothesis analysis show that there is a positive and significant influence on the effectiveness of the application of electronic attendance applications (SIAP) to work discipline can be seen from $t_{count} 7,424 > t_{table} 2.007$ with a significance value of $0.000 < 0.05$. The results of the third hypothesis analysis show that there is a positive and significant influence between work discipline on employee performance can be seen from $t_{count} 3,537 > t_{table} 2.007$ a significance value of $0.001 < 0.05$. The results of the fourth hypothesis analysis show that work discipline can mediate the relationship between the effectiveness of using the SIAP application with employee performance. Can be seen at $Z_{count} 3,08 > Z_{table} 1,96$ with p value of $0.002 < 0.05$. The effectiveness of the application of attendance through the SIAP application does not significantly affect directly on the performance of the apparatus at the Bandung City Environmental Service. However, With the presence of the SIAP application, employees are more disciplined in accessing information absenteeism. Discipline greatly affects the performance of employees and the organization. The more discipline, the higher the employee's work productivity and company performance. So, the more effective the implementation of the SIAP application, the more disciplined the apparatus will work, which can indirectly improve employee

performance. With the presence of the SIAP attendance application, the apparatus should be able to maximize the use of the SIAP application as an attendance system with various facilities provided. Not being able to manipulate attendance data, is expected to improve work discipline by being present and going home on time, and also not leaving the office during working hours, and it should be able to have a good impact on employee performance along with increasing work discipline.

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