



Implementation of the Online Attendance System to Improve Work Discipline of the Civil Servants

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Abstract

Digital transformation in government administration has encouraged institutions to implement online attendance systems to improve the work discipline of Civil Servants (ASN). This study aimed to analyze the effect of implementing an online attendance system on ASN work discipline at the Health Training Unit of the West Java Provincial Health Office. This research employed a quantitative approach with a descriptive survey method. The sample consisted of 40 civil servants, including Permanent Civil Servants (PNS) and Government Employees with Work Agreements (PPPK), selected using a saturated sampling technique. Data were collected through Likert-scale questionnaires and analyzed using descriptive statistics, Pearson correlation, simple linear regression, partial tests, and coefficient of determination with the assistance of IBM SPSS Statistics version 31. The results indicated that the online attendance system had a positive and significant effect on ASN work discipline, with a correlation coefficient of 0.762 and a coefficient of determination of 58%. These findings indicate that the more optimal the implementation of the online attendance system, the higher the level of Civil Servants (ASN) work discipline, particularly in punctuality, compliance with work regulations, and attendance consistency. This study confirms that online attendance systems play an important role in supporting a disciplined, transparent, and professional work culture in government institutions.

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Introduction

Agency government holds a strategic role in providing public service quality (Rifaldi et al., 2025), where success organization is highly dependent on the quality source Power human beings, especially the Permanent Civil Servants hereinafter referred to as PNS (Asman, 2021). In the realm of the public sector, Indonesian Civil Servants hereinafter referred to as (ASN) is required to work in a way professional with level high discipline in operating duties and responsibilities. Discipline Work is an indicator of the main in evaluating employee performance, because reflect level of obedience to regulations as well as the consistent implementation of task organization (Aprianti, 2023). More continues, discipline. Work is defined as the behavior of employees who reflect compliance with the provision organization, especially in the dimensions of presence, management time, work, and fulfillment not quite enough answer task (Hawa & Nafi'a, 2024). According to (Aderizal & Syamsir, 2023), a high level of discipline reflected from obedience employee to regulations, work accuracy, time, and ability to carry out tasks in accordance with standards that have been determined. With this, discipline ASN work not only focuses on aspects of presence, but also represents quality behavior, working in a way overall in the organization (Khaeruman, 2021).

In a way, normatively, the ASN discipline has been arranged in Constitution Number 5 of 2014 concerning Apparatus Civil Servants and Regulation Government Number 94 of 2021 concerning Discipline Civil Servants, which affirm the obligation of employees to comply with working hours and provisions of presence (Sulistiawati et al., 2024). In addition, in the context of digital transformation of government, (Presidential Regulation of the Republic of Indonesia Number 95 of 2018 concerning Electronic-Based Government Systems, 2018) confirms the urgency utilization technology information to increase efficiency, transparency, and accountability in the organization of government. (Jayadirja & Marlini, 2025). In a general way, based on a journal study (Rumbewas, G,R & Wijiningsih, N 2025), violations of ASN discipline still often happen with an up-down pattern throughout time. Condition. Similar observations were also made at the Unit Pelaksana Teknis Daerah (Regional Technical Implementation Unit, hereinafter referred to as UPTD) Health Training of the West Java Provincial Health Service, where observations began indicating that part employee Not yet fully obedient to the rule of attendance. Recapitulation data ASN attendance for the January-July 2025 period shows fluctuations amount absent employees without description, good in the form of delay and employees who failed to complete the TAP check-out attendance, so that required effort intensive For increase discipline Work employee.

Several government has adopt system of absence based *on line* as an effort to increase discipline Work employee (Leony et al., 2024). At the Health Training UPTD of the West Java Provincial Health Office, the system used is the K-Mob application, namely, according to (Annisa et al. (2023) is a mobile-based application that facilitates digital attendance through a feature *Global Positioning System (GPS)* as well as recording time in a way *real-time manner*. Implementation system. This aims to increase the accuracy of attendance data, transparency, and ease of the attendance monitoring process for employees (Fifi Freidah et al., 2023). In essence, absence reflects the proof of the presence of employees throughout the period. Work in a way overall With Thus, the form digital expected can reduce risk error recording caused by human error factors, at the same time increase the effectiveness of supervision to presence employee (Emelda, 2019).

In perspective system information, successful implementation is based *on the line* No let go from the quality of the system used. According to DeLone and McLean (in Krisdiantoro et al., 2018), success system information is determined by quality system, quality information, quality service, use, satisfaction

of users, and net benefit. With this, the more Good quality the system implemented, the more the benefits obtained are great for organizations, including in increase discipline employee (Syukriyati et al., 2023). However, although system absence has digital- based, improvement discipline Work employee No always happens in an automatic way without being supported by awareness individuals and adequate supervision of the organization (Sulistiawati et al., 2024). This in line with findings (Vergiawan, 2024) which show existence constraint in implementation absence *Online*, as well as (Nur Annisa, 2023) which emphasizes that effectiveness system really depends on how the system is used in practice organization.

In line with that, research (Aderizal Alifia, 2023) shows that the discipline of work employees is not only influenced by the system, but also by compliance with rules and responsibilities that answer individual in work. However, research previously still shows an existence gap, where some big studies use a qualitative approach, while others study quantitatively, which is a specific test of the influence of absence *online* on discipline work. Still limited. In addition, existing research also tends to use different variables as well as being carried out in different contexts and locations, so that Not yet been a comprehensive overview of the context institutions' training health at the level.

Therefore, there is still a gap in research, especially on limitations study quantitatively, which is a direct test of the influence of implementation absence based *On line* to discipline ASN work as the main variable. Apart from that, studying the context of institutions training health at the level of the area is also still relatively limited. Based on the discussion said, this research This aim analyze the influence of the absence of implementation based *On line* to discipline on ASN work at the UPTD Health Training of the West Java Provincial Health Service, as well as describe the level of implementation system absence and the condition of discipline employees as a runway testing connection intervariable.

Methods

This study applies a quantitative design through a descriptive survey method. According to the approach, quantitative implemented to test hypotheses on the population or sample through numerical data analysis. This design was chosen to describe the condition of the factual variables study at a time to analyze the connection between variables based on empirical data from respondents (Wally & Satyawati, 2025). The variables studied cover absence based *on line* as an independent variable and disciplined ASN work as a dependent variable. This study was conducted at the Health UPTD of the West Java Provincial Health Office. The population study includes 62 employees, consisting of Apparatus Civil servants and non-civil servants. The research sample focused on 40 ASN employees, which includes Civil Servants (PNS) and Government Employees with Agreement Work (PPPK). The job retrieval technique applied is *nonprobability sampling* using the saturated sampling technique, so that all ASN employees are made respondents in the study. Approach This allows use all over member population as a sample. Because the amount relatively small, so that minimize potential sampling bias.

Data collection techniques were implemented through a distribution questionnaire based on a Likert scale 1–5, which includes a range from very to very agree to strongly agree (Putri & Harjono, 2024). Instrument study consists of two main parts, namely for measuring the implementation absence based *on online* and variable discipline ASN work. Variable X is measured based on the success model system information. DeLone and McLean (Krisdiantoro, Yeney, et al., 2018) explain that there are dimensions of quality system, quality information, quality services, usage system, satisfaction of users, as well as the overall benefit. The Y variable refers to the indicator discipline Work according to Rivai (in Sinambela, 2016), namely presence, obedience to regulation work, obedience to standard work, level vigilance, and ethics Work. Data analysis methods applied in the study. This is a descriptive,

namely, statistical technique statistics used to describe the data that has been collected in a way What existence, without objective For do generalization to population where the sample comes from originate (Syam et al., 2024). Before conducting data analysis, researcher moreover formerly test the instrument study through validity and reliability to ensure that the instrument is feasible and consistent. Validity test done with product-moment correlation, while the reliability test uses Cronbach's Alpha coefficient (Wijana et al., 2023).

Next, a requirements test is carried out, an analysis or assumption test classic which is stages important in the analysis of simple linear regression, to ensure that the data meet the conditions of the analysis so that the resulting parameter estimates are valid and unbiased (Rosyidah et al., 2025). Test requirements analysis in the study. This includes normality tests and linearity tests. Then, the researcher conducts a hypothesis test, which is a procedure analysis statistics to test truth something statement or an assumption in a study based on the data obtained. Hypothesis testing done through analysis of simple linear regression for known influence implementation absence based *On line* to discipline ASN. The next partial test (t-test) was conducted for known significant influence variables independent of variables dependent, and coefficient test determination (R^2) for known size contribution variables independent in explaining the variation of variables dependent. All data processing and analysis processes are carried out with the device IBM SPSS Statistics software version 31 and Microsoft Excel 2021, which allows presentation of results in a systematic way in the form of tables and graphs to facilitate data interpretation (Nur et al., 2020).

Results and Discussions

1. Results

Study This done For analyze influence implementation absence based *On line* to discipline Work Apparatus Civil Servants (ASN) at the Health Training Unit of the West Java Provincial Health Office. Research data obtained through the distribution questionnaire to ASN, consisting of Civil Servants (PNS) and Government Employees with Agreement Work (PPPK). After the *data screening* process is carried out, the amount of data deemed worthy for analyzed more carry on by as many as 38 respondents. Instrument study in the form of a questionnaire that uses a Likert scale with a range 1 to 5 (very dissatisfied, no agree, undecided, agree, and strongly agree), which was designed to measure independent variables, that is, implementation absence based *on line*, as well as dependent variables, that is, discipline ASN work (Aderizal & Syamsir, 2023). Before being implemented in the main study instrument, the study tested try moreover formerly against 30 respondents outside the sample, namely the Apparatus Civil Service at SDN 113 Banjarsari. Trial. The aim is to verify that the instrument has fulfilled the criteria of validity and reliability. Testing instrument done with utilise device IBM SPSS version 31 software, so the results can be analyzed in an accurate and systematic before used as tool primary data collection (Rangga Maulana Jayadirja & Wenni Marlina, 2025) .

a. Validity Test

Validity test done to know to what extent the instrument is capable measure variables studied in a way right. According to (Sugiyono, 2022), a valid instrument is an instrument that is capable of measuring what it should measure. Testing validity was done using product-moment correlation with compare mark r count and r table at the level of significance of 5%. Based on the number of trial respondents , as many as 30 people, obtained a mark r table as big as 0.361 ($df = n-2 = 28$, $\alpha = 0.05$).

Instrument study consists of 31 grain statements, which are divided into variables implementation absence based on *Online* (X) and variables discipline ASN work (Y). Validity test

results show that part large items have a mark r count more big from r table, so that declared valid. Although this, several items of the statement on the variable X have an approximate count mark R table, so that the revision editorial to adjust with the indicators in question. After revision, all the grain statements fulfil the criteria of validity and are stated to be worthy of use in research, so that the instrument study can proceed. This capable measure constructs variables in a precise and accurate way (Sulistiawati et al., 2024) .

b. Reliability Test

Reliability test done For know level consistency instrument research. According to Sugiyono (2022), a reliable instrument is an instrument that, when used several times to measure the same object, will produce the same data. Testing reliability was done using the coefficient *Cronbach's Alpha* with a criterion of α value > 0.70 (Leony et al., 2024) . Based on results testing, the obtained *Cronbach's Alpha* for variables implementation absence based on *Online* (X) is 0.943 with a total of 17 statement items, while the variables discipline ASN work (Y) is 0.941 with a total of 14 statement items. Second, the mark is above the minimum limit set, so show that all items in each variable own level very high internal consistency. Thus, the instrument study stated reliable and worthy use as a tool for data collection in this study.

c. Analysis Statistics Descriptive

Before testing the hypothesis, the researcher moreover formerly do analysis statistics descriptive For get a general about research data conditions for each variable, namely implementation absence *On line* as independent variables (X) and discipline ASN as dependent variables (Y). Analysis This done against 38 ASN respondents at the Health Training UPTD of the West Java Provincial Health Service with the help of the application *IBM SPSS Statistics* version 31.

Table 1. Analysis *Descriptive Statistics*

	N	Minimum	Maximum	Mean	Standard Deviation
Absence <i>On line</i>	38	61	85	75.32	6,886
Discipline ASN Work	38	52	70	62.37	4,962
Valid N (listwise)	38				

Based on Table 1, the variables absence *On line* own minimum value of 61 and a maximum value of 85, with an average of 75.32. Meanwhile, the value standard deviation of 6,886 shows that the distribution answer respondents tend No too varies. Conditions the indicates that part big respondents give a relative assessment similar to the absence of an online implementation system in the environmental agency. In a way, a general, average value is sufficient to show that the absence *on line* has walked with good. System absence digital- based assessed capable assist the recording process presence become more orderly, transparent, and easier supervision presence employee. Additionally, use system based *online approach* also shows the existence of an organizational adjustment to the development of digitalization in governance personnel.

On the variable discipline ASN work, the minimum value is 52, and the maximum is 70, with an average of 62.37 and a standard deviation of 4.962. This value shows that the level of discipline in ASN work is in the category of " Enough good. This is seen from trend respondents who indicated compliance with the rule, work accuracy time, and implementation, with not quite enough answers.

Work in accordance with the provisions of the organization. Standard value relative deviation is small on both variables show that the answers of respondents tend to be homogeneous, or No own too much difference Far between respondents. With this, it can be understood that ASN perceptions of implementation absence *online* and the condition discipline work relatively consistently. In a way, overall, the descriptive statistics give a description beginning that implementation absence *online* in the UPTD Health Training environment of the West Java Provincial Health Service has implemented with Enough good and followed with level discipline relatively ASN work high. Findings, then become the base For done analysis to study the influence of the second variables.

d. Normality Test

A normality test is done to determine whether the residual data in the regression model is normally distributed or not. According to (Hardani et al, 2020) , testing normality is required as one of the conditions in parametric statistical analysis so that the data used does not exhibit any extreme deviation distribution. In this research, normality test done use method *One-Sample Kolmogorov-Smirnov Test* to mark *unstandardized residuals*.

Table 2. One-Sample Kolmogorov-Smirnov Test

		Unstandardize d Residual
N		38
Normal Parameters ^{ab}	Mean	.1884646
	Standard Deviation	3.28057549
<i>Most Extreme Differences</i>	Absolute	.109
	Positive	.063
	Negative	-.109
<i>Test Statistics</i>		.109
<i>Asymp. Sig. (2- tailed) ^c</i>		.200 ^d
Monte Carlo Sig. (2- tailed) ^e	Sig.	.299
	99% Confidence Lower Bound	.288
	Interval Upper Bound	.311

Based on the results of the normality test in Table 2, the obtained mark *Asymp. Sig. (2-tailed)* of 0.200 and the value *Monte Carlo Sig.* of 0.299. Second mark the more significant level significance of 0.05, so that it can be concluded that the residual data in the study is normally distributed. The results show that the regression model fulfils the assumptions of normality, so that the research data worthy used in analysis statistics parametric. With fulfillment assumptions normality, testing process hypothesis can done in a way more accurate because the data is not experience deviation significant distribution.

e. Linearity Test

Linearity test done For know whether connection between variables absence *online* and discipline ASN work has pattern linear relationship. Testing done through ANOVA table with see mark significance in part *Deviation from Linearity*.

Table 3. Linearity Test (Anova Table)

		Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined) <i>Linearity</i>	759,378 528,191	18 1	42,188 528,191	5,292 66,257	<,001 <,001

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(Karimah et al., 2026)*

Discipline ASN	<i>Deviation from</i>	231,187	17	13,599	1,706	.131
Work * Attendance	<i>Linearity</i>					
<i>On line</i>	Within Groups	151,464	19	7,972		
	Total	910,842	37			

Based on results testing linearity in Table 3, obtained mark significance *Deviation from Linearity* of 0.131 or more big of 0.05. The results show that No there is deviation connection between variables absence *Online* and disciplined ASN work. With Thus, the relationship between second variables study can stated as linear. This means that changes in the application of absence *on line* tend followed by changes discipline ASN work in general consistent. Therefore that is, a simple linear regression model assessed worthy used For analysis more carry on.

f. Heteroscedasticity Test

Heteroscedasticity test done for know There is or whether or not inequality residual variance in the regression model. Testing done use method Glacier with see mark significance variables independent to the absolute residual

Table 4. Heteroscedasticity Test (Coefficients ^{a)})

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1 (Constant)	5,371	3,318		1,619	.114
Absence <i>On line</i>	-.037	.044	-.138	-.836	.409

a. Dependent Variable: Abs_RES

Based on the results of the heteroscedasticity test in Table 4, obtained mark significance variables absence *on line* of 0.409 or more big of 0.05. The results show that no happen symptom heteroscedasticity in regression models study. With Thus, the regression model used has fulfil assumptions homoscedasticity, which means residual variance is constant. Condition This show that the regression model worthy used in testing hypothesis Because capable produce more estimates stable and unbiased. In a way overall, the results of the assumption test classic show that the regression model in study This has fulfil condition analysis statistics, good from aspect normality, linearity, and heteroscedasticity. Therefore that, analysis simple linear regression can to be continued For test influence implementation absence *on line* to discipline ASN work.

g. Testing Hypothesis Coefficient Test Pearson Correlation

Coefficient test Pearson correlation was performed for know level connection between variables implementation absence *on line* with discipline ASN work.

Table 5. Coefficient Test Pearson Correlations

		Absence <i>On line</i>	Discipline ASN Work
Absence <i>On line</i>	Pearson Correlation	1	.762 ***
	Sig. (2-tailed)		<.001
	N	38	38
Discipline ASN Work	Pearson Correlation	.762 ***	1
	Sig. (2-tailed)	<.001	
	N	38	38

Based on coefficient test results Pearson correlation in Table 5, obtained mark correlation of 0.762 with mark significance <0.001 . The results show that there is positive and significant relationship between implementation absence *online* and discipline ASN work. Coefficient value correlation of 0.762 shows level strong relationship. This means that the more Good implementation absence *online* in the environment agency, then tend the more high level discipline ASN work. On the other hand, if implementation absence *On line* Not yet running optimally, then discipline Work employees also have potential experience decline.

h. Simple Linear Regression Test and Coefficients Determination (R^2)

Table 6. Model Summary

Model	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Standard Error of the Estimate</i>
1	.762 ^a	.580	.568	3,260

a. Predictors: (Constant), Absence *On line*

simple linear regression test in Table 6 show that mark correlation or relationship (*R*) between implementation absence *on line* with discipline ASN work of 0.762. From the results processing the data obtained mark coefficient determination (*R Square*) of 0.580, which shows that variables implementation absence *online* (X) provides influence to discipline ASN (Y) work was 58%. Meanwhile that, the rest 42 % is influenced by other factors outside variables studied in study This.

i. Simple Linear Regression Test and Partial Test (T-Test)

Next, the researcher interpret the results of the simple linear regression test are in Table 7 below.

Table 7. Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	21,041		3,574	.001
	Absence <i>online</i>	.549	.078	.762	<.001

a. Dependent Variable: Discipline ASN Work

Based on Table 7, the constant value (*a*) is 21.041, while the regression coefficient value (*b*) is 0.549. Therefore, the regression equation in this study is expressed as $\hat{Y} = a + bX$, or $\hat{Y} = 21.041 + 0.549X$. The constant value of 21.041 indicates that ASN work discipline would have a score of 21.041 if the implementation of online attendance is considered constant or does not change. Meanwhile, the regression coefficient of 0.549 shows that every increase in the implementation of online attendance is followed by an increase of 0.549 in ASN work discipline. This regression coefficient indicates that the effect of online attendance implementation on ASN work discipline is positive. In other words, the better the implementation of online attendance, the higher the level of ASN work discipline tends to be.

In addition, Table 7 shows a significance value of <0.001 , which is lower than the significance level of 0.05. This result indicates that online attendance has a significant effect on ASN work discipline. This finding is further supported by the calculated t-value of 7.049, which is greater than the t-table value of 2.028. Therefore, the research hypothesis stating that the implementation of online attendance has an effect on ASN work discipline is accepted.

2. Discussion

The results of the study indicate that online attendance practices have a positive and significant effect on civil servant productivity. A coefficient of determination of 58% and a correlation coefficient of 0.762 indicate a strong relationship. In other words, implementing online attendance significantly improves civil servant productivity, particularly in terms of punctuality, compliance with work regulations, and consistent attendance. These findings align with research conducted by (Annisa et al., 2023), which found that implementing online attendance can help employees better monitor their attendance, which in turn improves work discipline. Furthermore, this study supports the findings of (Vergiawan & Kriswibowo, 2024), which state that digital attendance systems help civil servants comply more closely with regulations and work hours. Furthermore, these results support research by (Jayadirja & Marlina, 2025), which states that by providing clearer and more measurable oversight, digitizing the personnel administration system impacts employee discipline.

However, the results of this study also indicate that the implementation of online attendance is not the only factor influencing civil servant work discipline. This is evident from the coefficient of determination of 58%, indicating that 42% of other factors outside the study influence employee work discipline. This condition indicates that civil servant discipline is not solely influenced by digital systems; internal and external factors such as individual awareness, organizational culture, leadership supervision, work motivation, and the work environment also influence discipline. From a theoretical perspective, this study's findings align with DeLone and McLean's theory of information system success, as proposed by Krisdiantoro et al. (2018) which states that a quality information system can generate substantive benefits for an organization if the system is utilized effectively by its users. In the context of this study, the implementation of online attendance, which is assessed to provide easy access, accurate time recording, and attendance transparency, has been proven to have a positive impact on improving civil servant work discipline.

Furthermore, the findings of this study align with the concept of work discipline according to (Sinambela, 2016), which emphasizes that work discipline is reflected in employee compliance with regulations, punctuality, and responsibility in carrying out tasks. The implementation of an online attendance system encourages civil servants to adhere more closely to work schedules, as the attendance process can be monitored in real time and digitally integrated. This implicitly fosters more disciplined and responsible work behavior patterns. Based on the research findings, the implementation of online attendance has practical implications for organizations, particularly in improving the effectiveness of employee attendance monitoring through more transparent, accurate, and efficient mechanisms. A digital-based attendance system can be used as an organizational strategy to strengthen the culture of work discipline among Civil Servants within government agencies. Therefore, organizations are required to continuously develop the system, improve the quality of application services, and maintain consistent oversight to ensure optimal implementation of online attendance.

Theoretically, this research contributes to the development of human resource management and public administration studies, particularly in the areas of digitalization of personnel systems and civil servant work discipline. This research also has the potential to be a reference for further studies to explore other variables that have not been analyzed, such as work motivation, leadership, organizational culture, and employee job satisfaction in relation to ASN work discipline in the digital era.

Conclusion

Based on the research findings, the implementation of an online attendance system has been proven to have a positive and significant impact on the work discipline of the State Civil Apparatus (ASN). The analysis shows that the better the online attendance system is implemented, the higher the level of ASN work discipline. This is supported by a correlation coefficient of 0.762, indicating a strong relationship between the variables, and a coefficient of determination of 58%, meaning the system is able to explain more than half of the variation in work discipline. Online attendance also helps improve punctuality, compliance with regulations, and orderly employee attendance. Furthermore, this digital system allows for more accurate, transparent, and efficient attendance monitoring.

However, ASN work discipline is not solely determined by the online attendance system; it is also influenced by other factors beyond the scope of this study, such as organizational culture, individual motivation, supervision from superiors, and employee personal awareness. Therefore, agencies need to strengthen a culture of discipline through regular coaching, intensive supervision, and efforts to increase employee understanding of the importance of discipline in carrying out their duties. For future researchers, this study could be expanded by including additional variables that may influence civil servant discipline, such as leadership style, work culture, motivation, and job satisfaction. It is also recommended that similar research be conducted in more agencies so that the results can be more widely generalized.

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