

Influence of implementation of face recognition absence on employee work discipline

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Abstract

This study aims to determine and analyze the effect of implementing face recognition attendance on employee work discipline at the Office of the Ministry of Religion, Tolitoli Regency. The population The population of this study were all civil servants at the Office of the Ministry of Religion of Tolitoli Regency, totaling 76 people. The sampling technique used in this study was saturated sampling technique (census) in which all members of the population were used as respondents in this study, namely all civil servants of the Office of the Ministry of Religion of Tolitoli Regency totaling 76 employees. The tool used in proving the hypothesis is simple linear regression. The results of the research on the effect of applying face recognition absences on employee work discipline at the Office of the Ministry of Religion of Tolitoli Regency show that the application of face recognition attendance has a significant effect on employee work discipline at the Office of the Ministry of Religion of Tolitoli Regency. The coefficient of determination R^2 or $RSquare$ Which obtained by 0.450. This shows that the magnitude of the effect of applying face recognition attendance on employee work discipline is 45.0% while the remaining 55.0% is influenced by other variables.

Key words: Face recognition attendance; work discipline; employees

INTRODUCTION

Human resources (HR) is a very important factor that cannot even be separated from an organization, both institutions and companies. Human resources are also the key that determines organizational development as well as movers, thinkers and planners to achieve organizational goals. (Amelia et al., 2022).

Human resource management is an attempt to direct and manage human resources within the organization so that they are able to think and act as desired by the organization (Al-Khrabsheh et al., 2022). With good human resource management, it is hoped that there will be a contribution made to the organization in achieving its goals.

Absence is a form of recording attendance or attendance of a person or employee which is part of reporting from an organization/agency which contains data on the status of attendance which is neatly arranged and arranged and easy to find, and used when needed by interested parties at any time (Hammouche et al., 2022)

According to (Uway et al., 2022) said that, "implementation of filling in the attendance list or attendance manually (only in the form of an attendance book), will create obstacles for organizations/agencies for employee discipline in terms of the timeliness of arrival and departure of employees every day. ." It is feared that it will reduce employee commitment to work. Reduced employee commitment to work will have an impact on decreasing employee motivation and performance. According to (Harsch & Festing, 2020) states that "recording employee absences is an important factor in human resource management (Human Resources Management)". In-depth and detailed information regarding the presence of an employee can determine a person's work performance, salary/wages, productivity, and progress of the organization/agency in general. In the tool for recording employee attendance for the administration section and the honesty of employees whose attendance is being recorded, this often provides opportunities for manipulation of attendance data if continuous supervision of this process is not carried out as it should (Srg & Irawan, 2022).

According to (Sitopu et al., 2021) One of the functions of human resource management is to build employee discipline within the organization. Discipline of an employee must be applied in an organization/agency because discipline will have an impact on the results of employee work, so that it will affect the success and success of the organization/agency. Discipline is an important aspect that must be possessed by human resources, because with discipline all activities carried out become more organized and directed (Esthi & Savhira, 2019).

Discipline includes obedience and respect for agreements made between employees with established regulations. This is in line with Hasibuan's opinion (2002) in (Siswadi & Lestari, 2021) The definition of discipline is "An attitude of respect and respect for a regulation that applies, both written and unwritten and is able to carry it out and not refuse to accept sanctions if he violates the duties and authority given to him". To create employee work discipline, there are several things that need to be considered, including the application of good attendance and can motivate employees to be disciplined at work (Putri et al., 2019).

In the 1970s, there were at least ten countries in the world that had used digital absence technology. Effectiveness is the basis for using a digital attendance system both in organizations/agencies, this tool encourages organizations/agencies to streamline time, energy, as well as provide guarantees for data security. Thus, evidence of employee attendance (absence) can be obtained through this tool. The benefits of this digital times heet are to im prove the discipline of employee work attendance and avoid the practice of manipulating attendance (Polly et al., 2021); (Wood et al., 2019); (Bucci et al., 2019).

One of the organizations/agencies that has implemented this digital attendance is the Office of the Ministry of Religion of Tolitoli Regency. The digital attendance used is a type of face recognition, namely a facial recognition attendance machine that can identify a person from a digital image or video in real time. Working days within the Ministry of Religion are set at 5 (five) working days per week, from Monday to Friday or in accordance with local government working days. This attendance machine is installed near the head office. Every employee takes attendance by facing his face in front of the facial recognition attendance machine. Every employee is required to check in and go home with a predetermined time limit, namely Monday to Friday office hours no later than 07.30 WITA and leave

the office at 16.00 WITA. specifically on Friday the office hours are at 16.30 WIB. This in line with PMA Number 28 of 2013 concerning the discipline of the presence of Civil Servants (ASN) within the Ministry of Religion (Ispik, 2019).

The application of face recognition attendance is intended to make it easier for Leaders to see the extent to which the attendance discipline level is from masing-masing pegawai (Hariguna et al., 2019); (Cortellazzo et al., 2019); (Solorio, 2021).

Based on the results of observations, it was found that in terms of the use of face recognition attendance this was very good, it's just that there were still some unscrupulous employees who only came to take attendance and then left the office. Based on the background described above, the formulation of the problem in this study is as follows: Does the implementation of face recognition attendance affect employee work discipline at the Office of the Ministry of Religion of Tolitoli Regency?

METHOD

The type of research used in this study is a quantitative research method, namely to analyze the effect of application of face recognition attendance on employee work discipline at the office of the Ministry of Religion, Tolitoli Regency. Quantitative research methods can be interpreted as research methods based on philosophy and positivism that are used to examine certain populations or samples, data collection based on research instruments, data analysis in the form of quantitative/statistical, with the aim of testing established hypotheses (Pahleviannur et al., 2022). The research approach used is a causality approach, namely research that aims to determine the causal effect or influence and influence between two or more variables to explain, predict or control a particular symptom and then draw conclusions.

Population and Sample

Population is a generalized area consisting of objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn. The population of this study was all civil servants at the Tolitoli Regency Ministry of Religion Office, totaling 76 people.

The sample is part of the number and characteristics of the population, so a conclusion can be drawn. The sample is part of the population to be studied. In this research, the entire population can be used as a sample, this is because the population is small, so the entire population is determined to be the sample, namely 76 employees/respondents. The sampling technique used in this research is engineering sampling saturation (census) where all members of the population were used as respondents in this research, namely all civil servants at the Tolitoli Regency Ministry of Religion Office.

Method of collecting data

The data collection techniques used in this research:

Observation means making direct observations of the research object to look closely at the activities carried out in order to describe carefully and in detail the conditions in the field related to employee performance at the Tolitoli Regency Ministry of Religion Office;

A questionnaire is something that is done by giving a number of written statements to respondents who have been determined to obtain response data regarding the effect of implementing facial recognition attendance on employee work discipline at the Tolitoli Regency Ministry of Religion Office;

An interview is a process of interaction between an interviewer and a source of information through direct communication or asking questions about an object being studied; and

Documentary is the collection of data obtained by using written notes at the research location and other sources related to the problem being researched with the relevant institution.

Data analysis is one of the stages of research in the form of the process of compiling and processing data that has been collected in order to interpret data obtained from the field. The aim of data analysis is to simplify data into a simple form so that it is easier to read and interpret in the data processing process. In this research, the data analysis technique used to answer the problem formulation is by using analytical measuring tools. The collected data was analyzed qualitatively and quantitatively. This research uses descriptive statistical approach analysis, namely using analysis tools according to the basics of statistics with the help of a computerized statistical program called SPSS (statistical product and service solution) Version 25 for Windows.

Likert scale analysis is a scale used to measure attitudes and opinions with a Likert scale, respondents are asked to fill out or complete a questionnaire which requires them to indicate their level of agreement with a series of questions or statements used in this research, usually called research variables and specifically determined by researcher. The answers to each instrument that uses a Likert scale have gradations in the form of words given a weight or score

RESULT AND DISCUSSION

In this study, researchers conducted data analysis tests which included classic assumption tests and hypothesis testing.

Classical Assumption Test Results

This classic assumption test is used to determine whether the regression model used in this study meets the requirements such as the Normality Test and Heteroscedasticity Test. As for the assumption test classic as follows:

Normality test

The normality test aims to examine whether in a regression model the dependent (bound) variable, independent (free) variable or both have a normal distribution or not. One of the methods used to detect normality is the Kolmogorov-Smirnov test. The basis for decision making is:

If the significance value is > 0.05 , the data is normally distributed;

If the significance value is < 0.05 , the data is not normally distributed.

With the help of the SPSS 25 Statistics program, normality test results can be seen in the following table:

Table 1.
One-Sample Kolmogorov-Smirnov Test

One Sample Kolmogorov-Smirnov Test			Unstandardized Residual
N			76
Normal Parameters ^{a,b}	Mean		,0000000
	Std. Deviation		2,37157290
Most Extreme Differences	Absolute		,125
	Positive		,125
	Negative		-,050
Test Statistic			,125
Asymp. Sig. (2-tailed)			,005c
Monte Carlo Sig. (2-tailed)	Sig.		,170d
	99% Confidence Interval	Lower Bound	,161
		Upper Bound	,180
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			
d. Based on 10000 sampled tables with starting seed 2000000.			

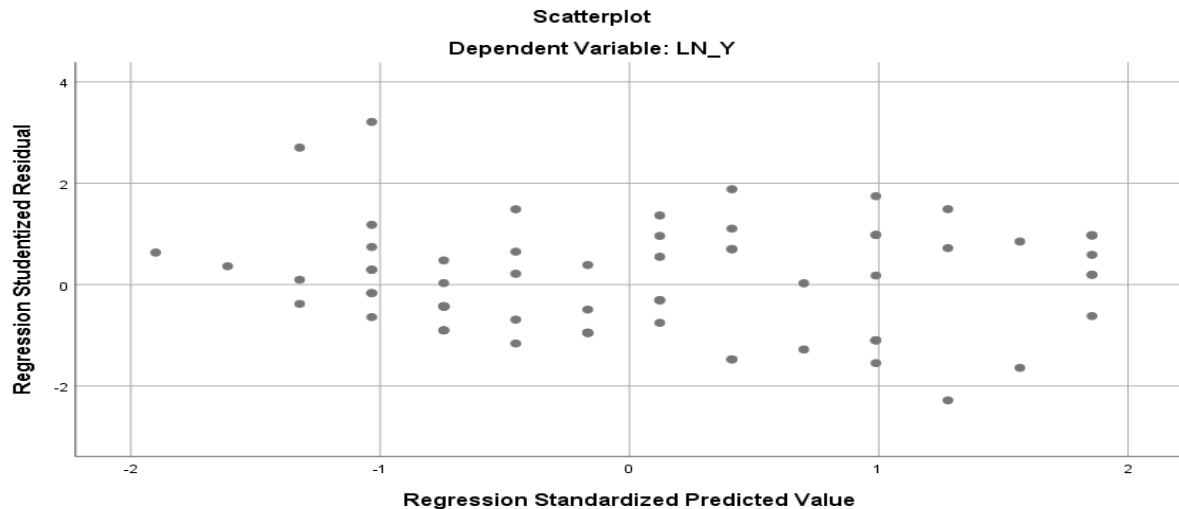
Based on table 1 above, it can be obtained information that from the residual Monte Carlo data the significance value is $0.170 > 0.05$ so it can be concluded that the data is normally distributed.

Heteroscedasticity Test

This test is intended to test whether in a regression model there is an inequality of variance residual of an observation to another observation. If the variance from the residual of one observation to another observation remains then it is called homoscedasticity and if it is different it is called heteroscedasticity (Ghozali, 2018: 142). To test whether there is heteroscedasticity or not, the Scatterplot test and Glejser test are used. If there is no heteroscedasticity if the significance value is > 0.05 . Conversely, if there is heteroscedasticity if the value significance < 0.05 .

Heteroscedasticity test results are formed and presented in the following image.

Figure 1.
Scatterplot Test



Based on Figure 1 above, it can be seen that the dots spread randomly, do not form a clear pattern and are spread both above and below the 0 axis. This means that there are no symptoms heteroscedasticity. To corroborate the above statement, another Glejser test is carried out as below

Uji Glejser

Table 2.
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	Unstandardized				
	(Constant)	-,029	,045	-,653	,516
	Absensi Face Recognition	,002	,001	,198	,086

a. Dependent Variable: ABS_RES

Based on table above, it can be concluded that there are no symptoms of heteroscedasticity because the significance value is $0.86 > 0.05$ meaning that the data is normally distributed.

Simple Linear Regression Test Results

Simple linear regression is one of the parametric statistics that functions to test the extent of a causal relationship between causative variables and effect variables. In the context of this study, simple linear regression was used to measure the effect of applying face recognition attendance (X) on employee work discipline (Y) at the Office of the Ministry of Religion, Tolitoli Regency.

According to the results of a simple linear regression analysis using the help SPSS For Windos 25 obtained research results from 76 respondents with the allegation that there was an influence between the independent variable (applying face recognition attendance) on the dependent variable (employee work discipline) at the Office of the Ministry of Religion of Tolitoli Regency. The calculation results can be seen as follows:

Table 3.
Simple linear regression test results
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
1	(Constant)	3,046	,078	39,137	,000
	Absensi Face Recognition	,016	,002	,671	,000

a. Dependent Variabel : LN_Disiplin Kerja Pegawai

Based on table 2 above, shows the results obtained value constant (a) of 3.046 while the face recognition attendance value is 0.016. the results obtained output simple linear regression equation as follows:

$$Y = 3.046 + 0.016X$$

Based on the table above, the t value is obtained count of 7.780 > t table 1.992 with a significance value of 0.000 < 0.05, it can be concluded that the independent variable (face recognition attendance) has a significant effect on the dependent variable (employee discipline).

In the regression model, a constant value of 3.046 is obtained, which means that the face recognition attendance variable is 0 (zero), so the employee work discipline variable is 3.046.

Based on the table above, the value of the coefficient X is 0.016, which means that if the X variable (face recognition attendance) is increased by 1%, it will increase the employee work discipline variable by 0.016.

Test Results for the Coefficient of Determination (R²)

The coefficient of determination is used to determine the influence of the independent variable on the dependent variable, the coefficient determinant ranges from zero to one ($0 \leq R^2 \leq 1$). This means that if $R^2 = 0$ indicates that there is no influence between the independent variables on the dependent variable, if R^2 the greater it is close to 1 indicates the stronger the influence of the independent variable on the dependent variable and if R^2 the smaller it is even close to zero, it can be said that the effect of the independent variables on the dependent variable is also smaller. Based on the results of calculations using SPSS version 25, the following data is obtained:

Table 4.
The test results of the coefficient of determination (R²)
Model Summary^b

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,029	,045		-,653	,516
	Absensi Face Recognition	,002	,001	,198	1,741	,086

a. Dependent Variable: ABS_RES

Based on table 3 above it can be seen that the value R Square of 0.450. which means that the magnitude of the influence of the independent variable face recognition attendance (X) on the dependent variable of employee discipline (Y). of 45.0% and the remaining 55.0% is influenced by other variables not examined in this study.

Hypothesis Test Results

The t test aims to show how far the independent variable or independent variable explains the variation of the dependent variable or dependent variable with a confidence level of 95% or a significance level of 5% with the criteria If tcount > ttable then Ha is accepted and Ho is rejected whereas if tcount < ttable then Ha is rejected and Ho is accepted. For the number of observational data as many as 76 with a significance level of 5% and the t formulatable = n-k-1 = 76-1-1 = 74 then obtained ttable of 1.992. Based on the results of calculations using SPSS version 25, the following data is obtained:

Table 5.
T test results
Coefficients^a

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.
		B	Beta		
1	(Constant)	3,046		39,137	,000
	Absensi Face Recognition	,016	,671	7,780	,000

a. Dependent Variable : Disiplin Kerja

Based on Table 4 above, the output of SPSS version 25 shows that the face recognition attendance variable has a value of tcount of 7,780 > ttable of 1.992 with a significant level of 0.000

<0.05 , which means that face recognition absences have a significant effect on employee work discipline. Then it can be interpreted that H_a is accepted and H_o is rejected.

CONCLUSION

Based on the results of the research conducted, the overall results of this study indicate that the application of face recognition attendance has a significant effect on employee work discipline:

The results of the t test show that the application of face recognition attendance has an effect on employee work discipline as evidenced by comparing the value of tcount and ttable with 95% confidence level and 5% error rate. The value obtained is tcount of 7.780 > ttable is 1.992 and the significance level obtained is less than 0.05, which is equal to 0.000 and if the significance level is less than 0.05, it can be said that the application of face recognition absences has an effect on employee work discipline in accordance with the theory put forward by Ghazali (2016), namely if tcount > nilai ttable for H_a is accepted and H_o is rejected, it means that the variable face recognition attendance has a significant effect on employee work discipline variables.

The results of the correlation analysis obtained a correlation coefficient of 0.016 or 1.6%. It can be said that there is a positive relationship between the variable application of face recognition attendance and employee work discipline at the Office of the Ministry of Religion, Tolitoli Regency. That is, if the application of face recognition attendance is increased, the employee's work discipline will increase and vice versa if the application of facial recognition attendance is reduced, the employee's work discipline will also decrease.

The results of the analysis of the coefficient of determination R^2 or RSquare Which obtained by 0.450 or 45.0%. This shows that the work discipline of employees at the Office of the Ministry of Religion of Tolitoli Regency is affected by the application of face recognition attendance by 45.0% and 55.0% is influenced by variables others that were not examined in this study. Other variables in question, for example, leadership style, work environment and work motivation are more influential on employee work discipline at the Office of the Ministry of Religion of Tolitoli Regency.

The results of this study are in line with the research of (Nurmayanti et al., 2022), (Yang & Han, 2020) which states that the application of face recognition absences has a positive effect on employee work discipline. On the other hand the results of this study are also not in line with research conducted by (Maryani et al., 2021) The results of his research show that the application of attendance (fingerprint) has not been able to improve employee work discipline, seen from achieving targets where output data from fingerprint attendance results can be manipulated so that data or information reported to the district is not accurate, many employees arrive late, do not come to work, and only come to roll call and then leave the office.

REFERENCES

- Al-Khrabsheh, A. A., Al-Bazaiah, S. A. I., Al-Khrabsheh, A. A., & Alheet, A. F. (2022). The strategic role of human resources management in performing crisis management: The mediating role of organizational culture and human capital during Covid-19 (An Applied Study on the Jordanian Ministry of Health). *Journal of Management Information and Decision Sciences*, 25, 1–18.
- Amelia, A., Manurung, K. A., & Purnomo, D. B. (2022). Peranan Manajemen Sumberdaya Manusia Dalam Organisasi. *Mimbar Kampus: Jurnal Pendidikan Dan Agama Islam*, 21(2), 128–138.
- Bucci, S., Berry, N., Morris, R., Berry, K., Haddock, G., Lewis, S., & Edge, D. (2019). “They Are Not Hard-to-Reach Clients. We Have Just Got Hard-to-Reach Services.” Staff Views of Digital Health Tools in Specialist Mental Health Services. *Frontiers in Psychiatry*, 10, 344.
- Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). The role of leadership in a digitalized world: A review. *Frontiers in Psychology*, 10, 1938.
- Esthi, R. B., & Savhira, I. (2019). The influence of work training, competence and discipline of work on employee performance in PT. Lestarindo Perkasa. *Journal of Research in Business, Economics, and Education*, 1(2).
- Hammouche, R., Attia, A., Akhrouf, S., & Akhtar, Z. (2022). Gabor filter bank with deep autoencoder based face recognition system. *Expert Systems with Applications*, 116743.

- Hariguna, T., Harahap, E. P., & Salsabila, S. (2019). Implementation of business intelligence using highlights in the yii framework based attendance assessment system. *Aptisi Transactions On Technopreneurship (ATT)*, 1(2), 109–116.
- Harsch, K., & Festing, M. (2020). Dynamic talent management capabilities and organizational agility—A qualitative exploration. *Human Resource Management*, 59(1), 43–61.
- Ispik, A. (2019). Pengaruh Disiplin Terhadap Kinerja Pegawai Kantor Kementrian Agama Kota Pekanbaru. Universitas Islam Riau.
- Maryani, Y., Entang, M., & Tukiran, M. (2021). The relationship between work motivation, work discipline and employee performance at the Regional Secretariat of Bogor City. *International Journal of Social and Management Studies*, 2(2), 1–16.
- Nurmayanti, A., Frendika, R., & Assyofa, A. R. (2022). Pengaruh Absensi Elektronik (Face Recognition) dan Pengawasan terhadap Disiplin Kerja Pegawai di Balai Besar Pengembangan Pasar Kerja dan Perluasan Kesempatan Kerja Lembang. *Bandung Conference Series: Business and Management*, 2(2), 909–917.
- Pahleviannur, M. R., De Grave, A., Saputra, D. N., Mardianto, D., Hafrida, L., Bano, V. O., Susanto, E. E., Mahardhani, A. J., Alam, M. D. S., & Lisya, M. (2022). *Metodologi Penelitian Kualitatif*. Pradina Pustaka.
- Polly, D., Martin, F., & Guilbaud, T. C. (2021). Examining barriers and desired supports to increase faculty members' use of digital technologies: Perspectives of faculty, staff and administrators. *Journal of Computing in Higher Education*, 33, 135–156.
- Putri, E. M., Ekowati, V. M., Supriyanto, A. S., & Mukaffi, Z. (2019). The effect of work environment on employee performance through work discipline. *International Journal of Research-GRANTHAALAYAH*, 7(4), 132–140.
- Siswadi, Y., & Lestari, D. (2021). Effect Of Work Motivation, Emotional Intelligence And Work Discipline On Employee Performance. *International Journal of Economic, Technology and Social Sciences (Injects)*, 2(1), 227–237.
- Sitopu, Y. B., Sitingjak, K. A., & Marpaung, F. K. (2021). The Influence of Motivation, Work Discipline, and Compensation on Employee Performance. *Golden Ratio of Human Resource Management*, 1(2), 72–83.
- Solorio, I. (2021). Leader on paper, laggard in practice: policy fragmentation and the multi-level paralysis in implementation of the Mexican Climate Act. *Climate Policy*, 21(9), 1175–1189.
- Srg, D. D. P., & Irawan, M. D. (2022). Blackbox Test on Web Based Employed Attendance Information System Design. *Journal of Information Systems and Technology Research*, 1(3), 168–178.
- Uway, S. R., Pangemanan, S. S., & Wangke, S. J. C. (2022). Employee Perception Analysis of The Use Fingerprint Attendance System at Department of Manpower and Transmigration of Southeast Minahasa. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 10(3), 705–715.
- Wood, A. J., Graham, M., Lehdonvirta, V., & Hjorth, I. (2019). Networked but commodified: The (dis) embeddedness of digital labour in the gig economy. *Sociology*, 53(5), 931–950.
- Yang, H., & Han, X. (2020). Face recognition attendance system based on real-time video processing. *IEEE Access*, 8, 159143–159150.