

THE EFFECT OF WORK MOTIVATION AND EMPLOYEE LOYALTY ON EMPLOYEE PERFORMANCE AT PT VIGANO CIPTA PERDANA

Sonya Sidjabat

Trisakti Institute of Transportation and Logistic
✉corresponding author: sidjabatsonya@gmail.com

ABSTRACT

This study aims to analyze the effect of work motivation and employee loyalty on employee performance of PT Vigano Cipta Perdana. The population and sample in this study were 56 employees of PT Vigano Cipta Perdana determined using saturated sampling techniques. The data collection technique used in this study was questionnaire distribution. The data analysis technique used in this study was the multiple linear regression analysis, correlation coefficient analysis, coefficient of determination analysis, t test, and F test. The results of the multiple linear regression analysis show that the value of the motivation regression coefficient on employee performance of PT Vigano Cipta Perdana is in a positive direction; the regression coefficient value of employee loyalty towards employee performance of PT Vigano Cipta Perdana in a positive direction. The results of the analysis of the correlation coefficient show that work motivation affects employee performance of PT Vigano Cipta Perdana by 11.90%; and employee loyalty affects employee performance of PT Vigano Cipta Perdana by 18.32%. The results of the coefficient of determination analysis show that work motivation and employee loyalty affect employee performance of PT Vigano Cipta Perdana, Tbk by 57.00%. The results of the t test and the F test, show that work motivation and employee loyalty have a significant effect on employee performance of PT Vigano Cipta Perdana.

Keyword: employee performance, loyalty, work motivation.

Introduction

Since the beginning of 2020 most countries in the world have begun to limit their citizens' activities outside the home, such as school activities, offices, and even worship in public places. The application of restrictions on activities outside the home aims to prevent the spread of the Corona virus. Restrictions on activities outside the home have a significant impact on all government and corporate activities. Many businesses have gone bankrupt because of losses after the COVID-19 pandemic hit. There are companies that carry out termination of employment to employees unilaterally; and lay off their employees until the COVID-19 pandemic ends.

In an effort to keep the company running normally, the company began implementing work shifts to limit the number of employees in the office, in accordance with local

government recommendations. Shifting is divided into two based on the location of work, the first is Work from Office and Work from Home. The implementation of work shifting is also carried out by PT Vigano Cipta Perdana Jakarta.

At PT Vigano Cipta Perdana Jakarta, there are many problems that arise, namely employee performance gets more attention from the company. According to the interview, it is known that the results of the employee's work are not expected. Employees often come on time at work and employees also do not provide maximum performance for the company so that it makes the company not achieve the desired target. Employee also do not have a high-level motivation. This is assessed through the attitude of employees who are not enthusiastic in completing their work and employee do not have a loyal commitment to carry out the duties so as not to contribute to the company. To prevent problem that arise then the company provides incentives for each employee so that they feel satisfied with their efforts. It is worth to what is earned by the company.

Based on the phenomena above, the author is interested in writing a research entitled: **THE EFFECT OF WORK MOTIVATION AND EMPLOYEE LOYALTY ON EMPLOYEE PERFORMANCE AT PT VIGANO CIPTA PERDANA JAKARTA.**

The formulation of the problem that has been found by the researcher is as follows:

1. How work motivation affects employee performance at PT Vigano Cipta Perdana Jakarta
2. How employee loyalty affects employee performance at PT Vigano Cipta Perdana Jakarta
3. How work motivation and employee loyalty together and simultaneously influence employee performance at PT Vigano Cipta Perdana Jakarta

Grand theory in this research is management, while middle range theory is human resources management, and applied motivation and loyalty.

According to Terry (2017), Management is a distinctive process consisting of planning, organization, mobilizing, and controlling actions to determine and achieve goals through the use of human resources and other resources.

Based on Kotler (2012), "Marketing management is the art and science of choosing target market and getting, keeping, and growing customers through creating, delivering,

and communicating superior customer value”.

Cushway in Sedarmayanti (2017) defines human resource management as an arrangement of strategies and processes and activities designed to achieve company goals by combining individual and company needs.

The most important part in human resource management is employee performance. Therefore, it is necessary to improve employee performance in order to contribute maximum results for the company (Dewi, 2016).

In a book entitled Human Resource Management volume II, Dessler (2009, p. 133) states that there are six indicators that measure employee performance, including: 1. Quality of work: Accuracy, thoroughness, and acceptance of the work that has been completed. 2. Productivity: Efficiency of work and quantity completed in a period of time. 3. Job Knowledge: Practical/technical skills and information on the job. 4. Reliability: The level of agility of employees in completing and following up tasks. 5. Attendance: The level of punctuality of employees in using breaks/meals and other attendance lists as a whole. 6. Independence: the level of employee's ability to perform work with supervision or without supervision.

In the book Human Resource Management (Theory and Practice), Kasmir (2016, p. 189), reveals that there are factors that affect performance, namely as follows: 1. Work Discipline: It can be in the form of time, such as never being late to the office, carrying out tasks according to the instructions given. 2. Ability and expertise: The work completed will be carried out correctly and in accordance with the instructions. 3. Knowledge: The results or quality of work will be optimal. 4. Work Plan. It will be easy to get the results obtained effectively and efficiently. 5. Personality: The person will do his/her job with full responsibility and will get good work results. 6. Work Motivation. It is a support for someone to carry out a job. 7. Leadership. It is defined as the nature of a person in organizing, managing and ordering his/her members to do a job and take responsibility. 8. Leadership Style. It is a leader's way of dealing with and commanding his members. 9. Organizational Culture. It is a norm/habit that is applied and enforced by a company. 10. Job Satisfaction. It is defined as feeling happy when doing a job. 11. Work Environment. A work environment with a comfortable atmosphere, providing calm and conducive, able to improve work results better. 12. Loyalty. It can be interpreted to build and work for the better by assuming that the company is like one's

own. 13. Commitment. It is a person's compliance to apply company policies and regulations while working.

Motivation is an urge to do something in order to achieve the goals of the company, which is adjusted to the ability of individuals or groups (Bonar P. Silalahi, 2014, p. 4).

There are three indicators to measure work motivation according to Syahyuti (2010): The drive to achieve the goal, Work Spirit and Initiative-Creativity.

Robin (in Malik, 2014) associates loyalty with the level of trust and is the desire to maintain an image for other parties. If individual or groups have trust and loyalty to something, then they will be willing to sacrifice and will be loyal to something that they believe in. Loyalty has a positive relationship to trust.

Powers (in Runtu, 2014) reveals that there are four indicators that can be used to identify employee work loyalty, such as: keeping company business secret, promote the organization to customers, obey the rules without the need for strict supervision, willing to participate in the organization's accidental activities

Table 1. Relevant Research

Researcher	Title	Publisher	Methods	Results
Syunus Adiwibowo	Leadership and Loyalty to the Employee Performance of RSI Menur Surabaya	Management Business Journal, Volume 2 No 01, Edition April 2012	<ul style="list-style-type: none"> • Coefficient Determination • Multiple Linier Regression • Test t • Test F 	Partially, work loyalty affects employee performance
Sofiyah Eka Alfiah	Work Motivation, Loyalty and Employee Quality against Employee Performance PT Usaha Gresik	BISMA: Bisnis Manajemen – Volume 8 No 2, February 2016	<ul style="list-style-type: none"> • Validity • Reliability • Multiple Linier Regression • Test t • Test F 	- Partially, motivation has no significant effect on employee performance - Partially, work loyalty affects employee performance - Simultaneously, motivation and work loyalty affect employee performance.

Idya Gomes I and Eddy Madioono Sutanto	The influence of Work Motivation and Employee Loyalty on Employee Performance at CV Hartono Flash Surabaya	AGORA Journal Vol 5, No 3, 2017	<ul style="list-style-type: none"> • Validity • Reliability • Coefficient Determination • Multiple Linier Regression • Test t • Test F 	<p>- Partially, motivation has a significant effect on employee performance</p> <p>- Partially, work loyalty affects employee performance</p> <p>- Simultaneously, motivation and work loyalty affect employee performance.</p>

Source: Previous Research Reviews.

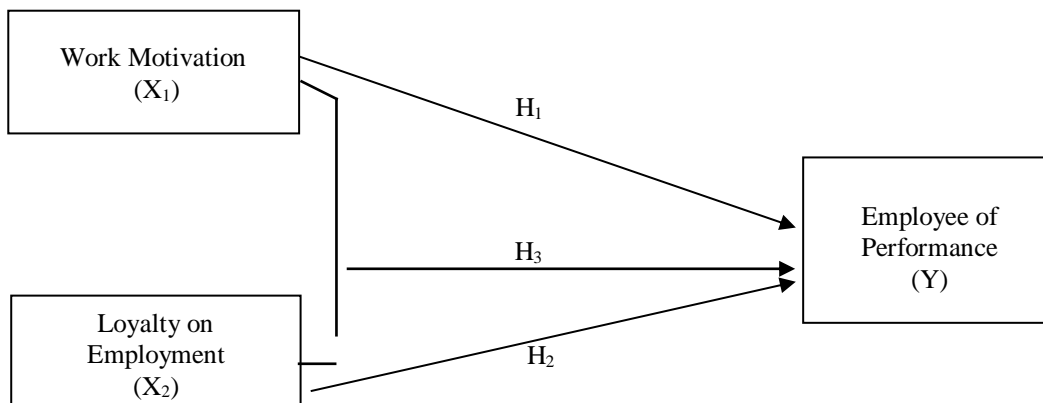


Figure 1. Conceptual Framework

Motivation is a force that encourages or directs a person to take an action or not. Direction in motivation is very dependent on the toughness of the leader. Employee motivation has a direct influence on employee

performance because motivation can increase employee morale which will have an impact on employee performance. In addition to motivation, employee work loyalty is also able to affect employee performance. If someone has loyalty and trust in something, then that person is willing to sacrifice and will be loyal to the thing he/she believes in. Likewise, employees who have loyalty to the company where they work, will try to achieve the highest performance for the company and themselves. If the employee's motivation and work loyalty are owned, then it is certain that the employee will have a high level of performance, when employees give their best performance, the company will provide feedback in accordance to the results of their work. Thus, between employees and the company will be mutually beneficial.

Method

This study is quantitative research. The population was 56 people. The data used were primary data obtained directly from concerned parties by distributing questionnaires. Secondary data obtained from other sources were also used. The method employed was a non-probability sampling. The non-probability sampling technique chosen was purposive sampling. This study used correlation and multiple linear regression, with the help of SPSS 24 software.

Tabel 2. Employee Performance Indicator

Variable	Dimension	Indicator
Employee Performance (Y)	Work Quality	1. Work accurately and thoroughly
		2. Produce quality output
	Productivity	3. Able to work multitask
		4. Able to work efficiently
	Job Knowledge	5. Understand the field of work
		6. Skilled in the field of work

	Reliability	7. Have a desire to contribute
		8. Responsible for working
	Presence	9. Always be present in company activities
		10. Work on time
	Independence	11. Trustworthy on the job
		12. Keep working unsupervised

Source: (Dessler, 2009, p. 133)

Tabel 3. Work Motivation Indicator

Variable	Dimension	Indicator
Work Motivation (X1)	Urge Achieving Goal	1. Work optimally
		2. Work for individuals and companies
	Spirit at Work	3. Support morally
		4. Wages received are in accordance with job responsibilities
	Initiative and Creativity	5. Able to do accidental work

Source: (Syahyuti, 2010)

Tabel 4. Employee Loyalty Indicator

Variable	Dimension	Indicator
Employee Loyalty (X2)	Keep Corporate Secrets	1. Trusted by the company
	Promoting the Organization to Customer	2. Always invite others to use the company's products
	Obey the Rules Unattended	3. Work according to the rules apply

		4. Feel guilty if you make a mistake in the company
	Participate in all activities	5. Always participate in company activities

Source: (Runtu, 2014)

Discussions and Results

Before the respondent's data is processed, first validity and reliability tests were done on 56 questionnaires. Result of the validity test states that it is valid because it has value and $r_{account} \geq r_{table}$. Thus, it can be said that all statements used in the questionnaire are able to explain the variables studied, namely, work motivation, employee loyalty and employee performance.

Table 1. Work Motivation Validity Test Results (X1)

Statement	r_{table}	$r_{account}$	Decision
X1 1	0,30	0,746	Valid
X1 2	0,30	0,754	Valid
X1 3	0,30	0,795	Valid
X1 4	0,30	0,788	Valid
X1 5	0,30	0,809	Valid

Source: Data processed by researchers (2020)

Table 2. Employee Loyalty Validity Test Results (X2)

Statement	r_{table}	$r_{account}$	Decision
X2 1	0,30	0,876	Valid
X2 2	0,30	0,838	Valid
X2 3	0,30	0,723	Valid
X2 4	0,30	0,824	Valid
X2 5	0,30	0,728	Valid

Source: Data processed by researchers (2020)

Table 3. Employee Performance Validity Test Results (Y)

Statement	r_{table}	$r_{account}$	Decision
Y 1	0,30	0,791	Valid
Y 2	0,30	0,772	Valid
Y 3	0,30	0,737	Valid
Y 4	0,30	0,906	Valid

Y 5	0,30	0,895	Valid
Y 6	0,30	0,888	Valid
Y 7	0,30	0,737	Valid
Y 8	0,30	0,906	Valid
Y 9	0,30	0,895	Valid
Y 10	0,30	0,888	Valid
Y 11	0,30	0,895	Valid
Y 12	0,30	0,888	Valid

Source: Data processed by researchers (2020)

Tabel 4. Characteristics of respondents by gender

Gender	Number of respondents (persons)	Percentage (%)
Man	36	64
Woman	20	36
Amount	56	100

Source: Data processed by researchers (2020)

Based on Table 4 presented above, it can be seen that 56 research respondents consist of 36 (64%) men and 20 (36%) women. Research respondents are dominated by male respondents because there is a jobdesc (physical inspection of rented vehicles) which requires male employees for the work.

Tabel 5. Characteristics of respondents by age

Age	Number of respondents (persons)	Percentage (%)
21-35 years	25	45
>35 years	31	55
Amount	56	100

Source: Data processed by researchers (2020)

Based on Table 5 presented above, it can be seen that 56 research respondents consist of 25 people (45%) aged 21-35 years and 31 people (55%) aged >35 years. The Research respondents were dominated by respondents aged >35 years because the research respondents were longtime employees of PT Vigano Cipta Perdana Jakarta.

Table 6. Characteristics of respondents based on marital status

Age	Number of respondents (persons)	Percentage (%)
Single	14	25
Married	42	75
Amount	56	100

Source: Data processed by researchers (2020)

Based on Table 6 presented above, it can be seen that 56 research respondents consist of 14 people (25%) who were single and 42 people (75%) who were married. The Research respondents were dominated by married respondents due to an increase in their work motivation.

Table 7. Characteristics of respondents based on working period

Years of Service	Number of respondents (persons)	Percentage (%)
1-5 years	11	21
5-10 years	38	73
>10 years	3	6
Amount	56	100

Source: Data processed by researchers (2020)

Based on Table 7 presented above, it can be seen that 56 research respondents consist of 11 people (21%) who worked 1-5 years, 38 people (73%) who worked 5-10 years and 3 people (6%) whose tenure is >10 years. The Research respondents were dominated by those having tenure 5-10 years because PT Vigano Cipta Perdana Jakarta requires experienced employees in their field of work.

Table 8. Characteristics of respondents based on income

Income	Number of respondents (persons)	Percentage (%)
< Rp 4 million	5	9
Rp 4 million - Rp 5 million	19	34
Rp 5 million - Rp 7 million	27	48
> Rp 7 million	5	9
Amount	56	100

Source: Data processed by researchers (2020)

Based on Table 8 presented above, it can be seen that 56 research respondents consist of 5 people (9%) earning < Rp 4 million, 19 people (34%) earning Rp 4 million - Rp 5 million, 27 people (48%) earning Rp 5 million - Rp 7 million, of 5 people (9%) earning > Rp 7 million. The Research respondents were dominated by respondents who earn Rp 5 million - Rp 7 million because the respondents are permanent employees and have work experience.

Result of the reliability test states that it is reliable because Cronbach Alpha value is greater than 0.60. Thus, it can be said that all statements used in the questionnaire are able to explain the variables studied, namely, work motivation, employee loyalty and employee performance.

Table 9. Work Motivation Reliability (X1)

Reliability Statistics	
Cronbach's Alpha	N of Items
0,832	5

Source: Data processed by researchers (2020)

Table 10. Employee Loyalty Reliability (X2)

Reliability Statistics	
Cronbach's Alpha	N of Items
0,853	5

Source: Data processed by researchers (2020)

Table 11. Employee Performance Reliability (Y)

Reliability Statistics	
Cronbach's Alpha	N of Items
0,962	12

Source: Data processed by researchers (2020)

Table 12. Coefficient of Partial Determination of Work Motivation (X1)

Control Variables	Correlations		Employee Performance	Work Motivation
Employee Loyalty	Employee Performance	Correlation	1.000	.345
		Significance (2-tailed)	.	.010
		df	0	53
Motivasi		Correlation	.345	1.000
		Significance (2-tailed)	.010	.
		df	53	0

Source: Data processed by researchers (2020)

Based on Table 12, the coefficient of partial determination of work motivation (X1) on employee performance (Y) is 0.345. Below are the results of the partial application of the coefficient determination analysis formula: $KD_{y.1.2} = r_{y.1.2}^2 \times 100\%$ $KD_1 = (0.345)^2 \times 100\% = 11.90\%$. The results of the analysis of the coefficient of partial determination of work motivation (X1) on employee performance (Y) is 11.90%. So, it can be concluded that the work motivation given by the management of PT Vigano Cipta Perdana Jakarta has an influence on employee performance by 11.90% and the remaining 88.10% is influenced by other variable outside the study.

Table 13. Coefficient of Partial Determination of Employee Loyalty (X2) Correlations

Control Variables		Employee performance Work Loyalty		
Motivation Employee Performance	Correlation	1.000	.428	
		Significance (2-tailed)	.	.001
		df	0	53
	Work Loyalty	Correlation	.428	1.000
		Significance (2-tailed)	.001	.
		df	53	0

Source: Data processed by researchers (2020)

Based on Table 13, the coefficient of partial determination of employee loyalty (X2) on employee performance (Y) is on 0.428. Below are the results of the partial application of the coefficient determination analysis formula:

$KD_{y.2.1} = r_{y.2.1}^2 \times 100\%$ $KD_2 = (0.428)^2 \times 100\% = 18.32\%$. The results of the analysis of the coefficient of partial determination of employee loyalty (X2) on employee performance (Y) is 18.32%. So, it can be concluded that the work motivation given by the management of PT Vigano Cipta Perdana Jakarta has an influence on employee performance by 18.32% and the remaining 81.68% is influenced by other variable outside the study.

Table 14. Coefficient of Determination of Work Motivation (X1) and Employee Loyalty (X2) on Employee Performance (Y)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.765a	.585	.570	3.476

a. Predictors: (Constant), Employee Loyalty, Work Motivation

Source: Data processed by researchers (2020)

Based on Table 14, the coefficient of determination of work motivation (X1) and employee loyalty (X2) on employee performance (Y) is on 0.570. Below are the results of the partial application of the coefficient determination analysis formula: $KD_{y.12} = \text{Adjusted } R^2 \times 100\% = 0.570 \times 100\% = 57.00\%$. The results of the analysis of the coefficient of partial determination of work motivation (X1) and employee loyalty (X2) on employee performance (Y) is 0.570. So, it can be concluded that the work motivation and employee loyalty given by the management of PT Vigano Cipta Perdana Jakarta is able to have an impact on

employee performance by 57.00% and the remaining 43.00% is influenced by other variable outside the study.

Table 15. Multiple Linear Regression Analysis and T test Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.340	4.171		1.040	.303
	Motivasi	1.068	.400	.357	2.673	.010
	Employee Loyalty	1.042	.303	.460	3.444	.001

a. Dependent Variable: Employee Performance

Source: Data processed by researchers (2020)

$$\hat{Y} = 4,340 + 1,068 X_1 + 1,042 X_2$$

The results of Multiple Linear Regression are shown in table 15 above can form a Multiple Linear Regression equation as follows:

The constant coefficient of 4.340 shows that it there are no independent variables (work motivation and employee loyalty) then the performance value of PT Vigano Cipta Perdana Jakarta is 4.340.

The regression coefficient on the work motivation variable (X1) is 1.068. This value shows that the work motivation variable has a regression coefficient value in the positive direction, which means when work motivation increases by 1 unit, the employee performance of PT Vigano Cipta Perdana Jakarta will increase by 1.068 units assuming other variables are considered constant.

The regression coefficient on the employee loyalty variable (X2) is 1.042. This value shows that the work loyalty variable has a regression coefficient value towards positive, which mean when employee loyalty increases by 1 unit, the employee performance of PT

Vigano Cipta Perdana Jakarta will increase by 1.042 units assuming other variables are considered constant.

In testing the partial hypothesis (t test) this study uses a 95% confidence level or $\alpha=5\%$ with the help of SPSS 24. Description below will explain the results of the t-test of the work motivation variable (X1) and employee loyalty (X2):

1. The influence of work motivation (X1) on employee performance (Y).

$H_0: \rho_{y1.2} = 0$ = There is no significant effect between work motivation on employee performance.

$H_a: \rho_{y1.2} \neq 0$ = There is a significant influence between work motivation on employee performance.

Based on the results of the t test previously presented in Table 15 the significant t value of the motivation variable (X1) is 0.010 so it can be concluded if H_0 is rejected or H_a is accepted, because significant t is smaller than the real level = 5% ($0.010 < 0.05$). This proves that there is a significant influence between work motivation on the employee performance of PT Vigano Cipta Perdana.

2. The influence of employee loyalty (X2) on employee performance (Y).

$H_0: \rho_{y2.1} = 0$ = There is no significant employee loyalty between employee performance.

$H_a: \rho_{y2.1} \neq 0$ = There is a significant influence between employee loyalty on employee performance.

Based on the results of the t test previously presented in Table 15 the significant t value of the employee loyalty (X2) is 0.001 so it can be concluded if H_0 is rejected or H_a is accepted, because significant t is smaller than the real level = 5% ($0.01 < 0.05$). This proves that there is a significant influence between employee loyalty on the employee performance of PT Vigano Cipta Perdana.

Table 16. F Test Table
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	904.048	2	452.024	37.404	.000 ^b
	Residual	640.506	53	12.085		
	Total	1544.554	55			

a. Dependent Variable: Employee Performance

b. Predictors: (Constant), Employee Loyalty, Work Motivation

Source: Data processed by researchers (2020)

H₀: $\rho_{y12} = 0$ There is no significant effect between work motivation and employee loyalty on employee performance.

H_a: $\rho_{y12} \neq 0$ = There is a significant influence between work motivation employee loyalty on employee performance.

Based on the results of the F test previously presented in Table 16, a significant f value of 0.000 was obtained, so it can be concluded if H₀ is rejected or H_a is accepted, because significant of F is smaller than the significance level of = 5% ($0.000 < 0.05$). This proves that there is a significant work motivation and employee loyalty on the employee performance of PT Vigano Cipta Perdana.

Conclusion and Recommendations

From the discussion results above it can be concluded that:

1. Work Motivation has a significant influence on the Employee Performance of PT Vigano Cipta Perdana
2. Employee Loyalty has a significant influence on the Employee Performance of PT Vigano Cipta Perdana
3. Work Motivation and Employee Loyalty have a significant influence on the Employee Performance of PT Vigano Cipta Perdana

The recommendations that can be proposed are:

1. Management of PT Vigano Cipta Perdana should review the distribution of job descriptions to employees. PT Vigano Cipta Perdana, can make notes on the strengths and weaknesses of employees in the field of work.
2. The management of PT Vigano Cipta Perdana provides rewards or bonuses to employees who manage to get customers. They will be motivated to offer the company products to others in the hope of getting a bonus. It's also a form of employee loyalty to the company.

References

- Bonar P. Silalahi, K. A. (2014). Pengaruh Motivasi, Pengawasan, Dan Disiplin Kerja Terhadap Prestasi Kerja Pegawai Dinas Pendapatan, Pengelola Keuangan Dan Kekayaan Daerah Kabupaten Tapanuli Tengah. *Jurnal Bisnis dan Manajemen Eksekutif*, I(1), 4.
- Dessler, G. (2009). *Manajemen Sumber Daya Manusia Jilid II* (10th ed.). Jakarta: Indeks.
- Dewi, R. d. (2016). PENGARUH STRES KERJA PADA KINERJA KARYAWAN DENGAN LOCUS OF CONTROL SEBAGAI VARIABEL PEMODERASI. *Jurnal Manajemen "Strategi Bisnis dan Kewirausahaan"*, X(2).
- Kasmir. (2016). *Manajemen Sumber Daya Manusia (Teori dan Praktik)*. Jakarta: PT Raja Grafindo Persada.
- Kotler, P. (2012). Marketing management/Philip Kotler, Kevin Lane Keller. *Pearson Education International*.
- Malik, A. (2014). Pengaruh Budaya Organisasi Dan Loyalitas Kerja Dengan Intensi Turnover Pada Karyawan PT. Cipaganti Heavy Equipment Samarinda. *eJurnal Psikologi Volume II No.I*, 69.
- Runtu, J. (2014, February). *Indikator Loyalitas Karyawan*. Retrieved October 18, 2020, from www.juliusruntu.blogspot.co.id: <http://juliusruntu.blogspot.co.id/2014/02/indikator-loyalitas-karyawan-bahan.html?m=1>
- Sedarmayanti. (2017). *Manajemen Sumber Daya Manusia*. Bandung: Refika Aditama.
- Syahyuti. (2010). *Definisi, Variabel, Indikator dan Pengukuran dalam Ilmu Sosial*. Jakarta: Bina Rena Pariwara.
- TERRY, G. (2017). *Manajemen Sumber Daya Manusia. Pelatihan dan Pengembangan*. <https://doi.org/10.1145/2505515.2507827>