Confirmatory Factor Analysis on the Performance of Private Employees in Medan

Akhmad Taufik[1,2], Ritha F. Dalimunthe[3]

[1] *Student doctoral Program of management Universitas Sumatera Utara*
[2] *Lecturer of Faculty of Social SciencesUniversitas Pembangunan Panca Budi*
[3] *Lecturer of Economics and business Faculty of Universitas Sumatera Utara*

Abstract : This research aims to analyse the influence of work skills, salary, leadership, working environment, compensation, work discipline and work motivation in partial to employee performance. Analyzing the ability of work, salary, leadership, work environment, compensation, work discipline and work motivation on the basis of employee performance. The problem of this research is still employees have dissatisfaction with salary given by the company. The existence of employees have the inconvenience of the less friendly work environment, the temperature of the room is less fresh, the atmosphere of the room, and the relationship between the employees are less woven harmoniously involved conflict and quarrel understand. There are undisciplined employees who will have a decrease in the company's target. Research is done to respondents who are employees. Data analysis uses a recourse path. The results of the discussion are known through a test factor analysis there are 2 (two) factors that affect the increase in employee performance, the factors are: the first factor is the ability to work with the value of loading factor of 0.887. The second factor is a working environment with a loading factor value of 0.876. Test results of double linear regression analysis that there is a positive and significant influence between work ability and work environment to increase the performance of private employees in Medan.
Keywords: work ability, salary, leadership, work environment, compensation, work discipline, motivation, performance
----
Date of Submission: 14-05-2020   Date of Acceptance: 29-05-2020

I. Introduction

Research on employee performance is necessary, problems related to performance issues should be studied in such a way as the result of analysed is expected to be an indicator that can be used as the company's instructions in setting the employee's performance assessment policy. In general, the company is one form of a production organization that requires a high working capability related to the production of the market. The higher the level of employee-owned the company will positively impact the company's product. Besides, interpersonal work relationship and employee satisfaction level against compensation will also coloring access of employees ' performance. The more harmonious the employee's working relationship and the more satisfied the employees are to the compensation, the production will be more smoothing.

This research is more of a case study at the company by lifting the issue on whether the work capability has significant effect on the employee's performance, whether the satisfaction against compensation has significant effect on the employee's performance, whether the discipline affects the employee's performance and whether the leadership style also has a significant impact on the performance of private employees in Medan? By addressing problems in performance issues, the objectives that are intended to be achieved in this study include efforts to analyse the influence of work skills on employee performance, to analyse the impact of work salaries on employee performance, to analyze the influence of leadership styles on employees ' performance, to analyse the influence of the work environment, to analyze the influence of compensation, to analyze the influence of discipline and to analyse the impact of work motivation on the compensation of employees ' performance in the company.

The increase in the performance of employees in medium and low categories, where the category of employees ' performance continues to increase while the low category dropped from 3 to 5 people. The decline of employee performance is especially from staff. From this performance assessment researchers want to know what causes the decrease in productivity of the PT employees. Declining employee performance brought a negative impact to the company. There are still employees who have dissatisfaction with the leadership style of their superiors who are too authoritarian, who are too fond of their employees, and who never want to listen to the reasons for employees. There are still employees who have dissatisfaction with the salary given by the company. The existence of employees have the inconvenience of the less friendly work environment, the

temperature of the room is less fresh, the atmosphere of the room, and the relationship between the employees are less woven harmoniously involved conflict and quarrel understand. There are undisciplined employees who will have a decrease in the company's target.

II. Heading

Employee performance is a result of what has been done, done by someone in carrying out work or assignment. Performance is an achievement of work or performance, which is the result of work during a certain period compared with various possibilities. Basically, the performance of an employee is an individual thing because each employee has different levels of ability to work on the task. Tsai (2008) Satisfaction in performance can be expressed in the perceived subordinate's feelings to the leader. There is satisfaction with co-workers in which the employee feels a working relationship with the co-worker.

According to Mangkunegara (2012:9) "Employee performance (work achievement) is the result of work in quality and quantity achieved by a person in carrying out his duties in accordance with the responsibilities given to him". The sense of performance according to Sedarmayanti (2011:260), revealed that performance is a translation of performance which means the work of a worker, a management process or an organization as a whole, where the work must be demonstrated in concrete evidence and can be measured (compared to predefined standards).

The performance of employees according to Hasibuan (2012:94), can be interpreted as a result of work achieved by one in carrying out the duties charged to him based on his skills, experience, and sincerity and time. A company in achieving the objectives must be through an organizational means consisting of resources that play an active role in achieving the company's objectives. Individual performance has a close relationship with the performance of the institution or company. A person's performance is high when he has high skills, willing to work according to the agreed wage or salary.

Performance is the result of work that has a strong relationship with the strategic objectives of the Organization, consumer satisfaction, and contributes to the economy. Performance is about doing the work and results achieved from the work (Hamali, 2016). Performance is a real behavior that is shown by everyone as a work achievement produced by employees according to their role in the company. Employee performance is very important in the company's effort to achieve its objectives (Zainal et al, 2014).

Performance employee performance that has been implemented by all human resources should be evaluated whether it is compliant with the level or expected standards. This should always be done periodically considering that everyone's work productivity has the possibility to decline due to many factors, therefore to maintain the stability of HR work evaluation periodically will be very good to do. Performance can be interpreted as a representation of the level of achievement of an activity or program, or a policy of realizing the objectives, objectives, mission and vision of the organization contained in the strategy plan of an organization. Performance terms are often used to describe the achievement or success rate of an individual or group of individuals. Performance can be known only if the individual or group of individuals has a defined success criteria. These criteria of success are specific objectives or targets to be achieved. Without a goal and a target, the performance of a person or organization cannot be known because there is no benchmark.

III. Indentations And Equations

Rusiadi (2014:12) Quantitative research is a study aimed at knowing the degree of relationship and pattern/form of influence between two or more variables, where with this research it will be built a theory that serves to explain, predict and control a symptom ". The study discusses determinants of improved employee performance, including: work ability, salary, leadership, employment, compensation, discipline, and job motivation to analyse the determination of performance improvement of employees with the CFA factor analysis.

Analyze data using CFA. Furthermore, the analysis of the factors aimed at finding a way to summarize the information contained in the original variable (initial) into a set of new dimensions or variate (factor) with the formula:

$Xi = Bi1\ F1 + Bi2\ F2 + Bi3\ F3 + Bi4\ F4................. + Vi\mu i$

Where:

Xi = The I-standardised variable

Bij = partial regression coefficient for variable i in common factor to-J

FBJ = Common factor to-I

Vi = the standardised regression coefficient for the to-I variable on the unique to-I factor

Mi = unique to-I variable factor

Test criteria: The expressed factor is the dominant factor when having component coefficient of matrix > 0.5. Specifically for factor analysis, the following assumptions must be fulfilled: (Santoso, 2011)

A) intercorrelation between independent variables. Large correlation or inter-independent variable correlation should be strong enough, e.g. above 0.5.

b) Partial correlation. Large partial correlation, the correlation between the two variables by assuming it remains another variable, precisely should be small. In SPSS detection of partial correlation is given via the option Anti-Image Correlation.

c) Testing the entire matrix of correlation (correlation between variables), measured by the magnitude of the Bartlett Test of Sphericity or Measure Sampling Adequacy (MSA). This test requires a significant correlation between at least a few variables.

D) In some cases, assuming the normality of the variables or the factors that occur should be fulfilled.

IV. Figures And Tables

As for the result of the testing of Barlett's test of Sphericity and Kaiser-Meyer-Olkin (KMO) with the help of SPSS 16 software is seen in the table below.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.703
Bartlett's Test of Sphericity	Approx. Chi-Square	240.961
	Df	21
	Sig.	.000

Sumber : Hasil Pengolahan SPSS Versi 16.0

Table 4.24 above shows the value obtained from the barlett'stest of Sphericity test is 240,961 with a significance of 0.000, this means that between variables there is a correlation (significant < 0.05). Kaiser-Meyer-Olkin test results (KMO) obtained a value of 0, 703where the number is already above 0.5. Thus the variables in this study could be further processed. The next step is the Measure of Sampling Adequency (MSA) test, where each variable is analyzed to find out which variables can be processed further and which should be issued. To be further processed each variable must have an MSA value of > 0.5. The MSA value is in the Matrice Anti-Image table in the Anti-Image Correlation section, which is the correlation number marked "a " with the diagonal direction from the upper left to the bottom right. The MSA test results for this research variable are shown in the following table.

Anti-image Matrices

		Kemampuan Kerja	Gaji	Kepemimpinan	Lingkungan Kerja	Kompensasi	Disiplin	Motivasi Kerja
Anti-image Covariance	Work skills	.344	-.225	-.147	.086	.006	-.142	-.056
	Salary	-.225	.519	.072	-.046	.000	.001	-.047
	Leadership	-.147	.072	.511	-.204	-.099	.091	.000
	Working environment	.086	-.046	-.204	.423	-.222	-.081	.042
	Compensation	.006	.000	-.099	-.222	.464	.098	-.057
	Discipline	-.142	.001	.091	-.081	.098	.381	-.209
	Motivation work	-.056	-.047	.000	.042	-.057	-.209	.498
Anti-image Correlation	Work skills	.672[a]	-.532	-.352	.227	.014	-.393	-.134
	Salary	-.532	.748[a]	.140	-.099	.001	.003	-.093
	Leadership	-.352	.140	.638[a]	-.438	-.203	.205	-.002
	Working environment	.227	-.099	-.438	.632[a]	-.502	-.202	.092
	Compensation	.014	.001	-.203	-.502	.730[a]	.233	-.119
	Discipline	-.393	.003	.205	-.202	.233	.716[a]	-.480

Motivation work	-.134	-.093	-.002	.092	-.119	-.480	.793[a]

a. Measures of Sampling Adequacy(MSA)

From the table 4.25 above it is known that the variables in this study have an MSA value of > 0.5 so that the variables can be analyzed as a whole further.

A. A Communality estimation

Communalities is the proportion of the variant of an original change item that can be explained by the main factor. The Communalities value explains how large the diversity or variation of the original item/map can be explained by the factors that are formed. This communalities value is obtained by summing the value of the Eigen value on the existing factor. The communalities value gained in this study can be seen in the table below.

Communalities

	Initial	Extraction
Work skills	1.000	.787
Salary	1.000	.626
Leadership	1.000	.722
Working environment	1.000	.780
Compensation	1.000	.750
Discipline	1.000	.732
Motivation work	1.000	.654

Extraction Method: Principal Component Analysis.

In the table above that the working capability variable (X1) has a value of 0.787, this means that around 78.7% of variances of the work capability variables can be explained by the factors formed. The salary variable (X2) has a value of 0.626, this means that around 62.6% of variances from salary variables can be explained by the factors formed. The leadership variable (X3) has a value of 0.722, this means that around 72.2% of variances from leadership variables can be explained by the factors formed. The Working environment variable (X4) has a value of 0.780, this means that around 78.0% of the variances of the work environment variables can be explained by the factors formed. The compensation variable (X5) has a value of 0.750, this means that around 75.0% variance of the compensation variable can be explained by the factors formed. The disciplined variable (X6) has a value of 0.732, this means that around 73.2% variances of disciplined variables can be explained by the factors formed. The working motivation variable (X7) has a value of 0.654, this means that around 65.4% of variances from work motivation variables can be explained by the factors formed.

A. Doing the factoring and rotation

Once all variables are eligible to be analyzed, the next step is to perform the core process of the factor analysis, which is to perform the extraction of the existing variable set, thus forming one or more factors. Rotation factor is done to facilitate interpretation in determining which variables are listed in a factor. In this study used the rotational factors which belongs to the rotational method of Orthogonalie rotate the axis 90 °.

1) Determination of number of factors

In this research the author determines the number of factors by using the value of Eigen value with the value criteria Eigen value > 1. (Imam Ghozali in Nurjannah 2010). The Eigen value arrangement is always sorted from largest to smallest. To know the number of factors formed from the extraction results can be seen in the table total variance explained.

In the table 4.27 is known that from the 7 variables entered for factor analysis, there are 2 factors formed because from component 1 to component 2 shows Eigen value > 1 Then the process of factoring only up to 2 factors, if continued until the next factor eigen values are less than 1 ie by 0.620. So it is known that 3 factors are the most optimal amount.

Total Variance Explained

Comp onent	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulativ e %	Total	% of Variance	Cumulativ e %	Total	% of Variance	Cumulativ e %
1	3.112	44.459	44.459	3.112	44.459	44.459	2.786	39.797	39.797
2	1.938	27.688	72.148	1.938	27.688	72.148	2.265	32.350	72.148
3	.620	8.856	81.004						
4	.478	6.822	87.826						
5	.374	5.337	93.163						
6	.289	4.125	97.287						
7	.190	2.713	100.000						

Extraction Method: Principal Component Analysis.

1) Interpretation factors

Once formed factors, the next stage is to interpret the factors formed by looking at the table

Component matrix that shows the 7th variable distribution on 2 factors formed. The numbers in the table are the loading factor, indicating the magnitude of correlation between a variable and the factors formed.

In table 4.28 is a table of initial component matrix, the result of the factor can not be interpreted because the variables that exist only accumulate on one or several factors just not thorough, for that need to be done rotation factor.

The rotation factor is intended to get a clear data view of the loading value for each variable against the existing factors. This interpretation is based on the largest loading value of each variable against the existing factors, so a variable will go into the factor that has the largest loading value, after a substantial comparison of the correlation to each line. Table 4.29 is a table rotated component matrix shows the results of the rotation factor.

Component Matrix[a]

	Component	
	1	2
Discipline	.819	.246
Work skills	.765	.449
Motivation work	.733	.341
Salary	.680	.403
Leadership	-.426	.735
Working environment	-.555	.687
Compensation	-.604	.621

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Rotated Component Matrix[a]

	Component	
	1	2
Work skills	.887	-.022
Discipline	.826	-.223
Motivation work	.803	-.097
Salary	.791	-.016
Working environment	-.109	.876

Leadership	.025	.849
Compensation	-.186	.846

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Component matrix results of the rotation process (rotated component matrix) shown in the table 4.29 shows a more clear and real variable distribution. It is apparent that the loading factor that used to be small is increasingly minimized and the larger factor loadingare increasingly enlarged. Then obtained several variables that dominate each factor, namely as follows:

A) The first factor, consisting of work ability (X1) with the value of loading factor 0.887.

b) The second factor, consisting of a working environment (X4) with the value of loading factor 0.876.

Component Transformation Matrix

Component	1	2
1	.850	-.527
2	.527	.850

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Sumber : Pengolahan SPSS Versi 16.0

From the Component Transformation Matrix table visible figures in the diagonal, between Component1 with 1 and Component 2 with 2. Seen both numbers far above 0.5. This proves that both factors (Component) formed are appropriate, because it has a high correlation.

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1 (Constant)	22.490	.037		605.841	.000		
Work skills	2.148	.037	.778	57.499	.000	1.000	1.000
Working environment	1.706	.037	.618	45.670	.000	1.000	1.000

a. Dependent Variable: performance

1. Ability to influence employee performance

The ability of employees ' work from perceptions of respondents gained through poll results shows that employees ' working skills in the category are not yet good. Based on the test-T results obtained Thitung of 57.499 with the probability level (SIG) is 0.000, if compared to the this at $\alpha = 0.05$, means Thitung > This and sig < 0.05, thitung57,499 > This 1.666 and sig 0.000 < 0.05. This means that there is a positive and significant influence between the variable workability of the employee's performance.

Rachmawatiet al, (2006) looked at the ability and performance was always in touch, as it was found that the relationship between work ability and employee performance showed a strong enough relationship. This is seen from employees with low working skills tend to have low performance as well. Meanwhile, employees with high working ability are mostly high performance. The research is in line with the research conducted by Widiaswari (2010) titled The relationship between the ability factor with the performance of District officials Banjarbaru Kota shows that, the relationship of variable performance with the work ability shows a positive and significant relationship to the employee's performance. That means if the ability of employees good, the performance of employees will also increase, and vice versa.

Work ability is a good exploit of the resources belonging to and within the Organization, as well as the potential to carry out certain activities or a series of activities. Work skills owned by PT. Federal International

Finance employees such as skills, knowledge and good experience can affect the level of employee performance.

Schreyogg in Kusumasari (2014:45), the ability of work is very important to the organization, because the ability to be identified as one of the main sources for generation and competitive development, uncertainty and environmental change is the reason the capabilities must be owned by the organization to change and develop important prerequisites quickly to enhance the competitive advantage.

2. Impact of work environment variables on employee performance

The working environment is positive and significant to the employee's performance. Working environment variable coefficient of influence is 45, 670and sig = 0.000. These results indicate that the work environment is one of the factors affecting employee performance. This suggests that with a good working environment in work will get good employee performance while the low working environment will result in low employee performance as well. It is also indicated that a working environment condition can be said to be well-suited when they can carry out activities optimally, healthily, safely, and comfortably, while the less-than-good working environment demands more labor and time and does not support obtaining efficient work system design. A conducive work environment can directly influence employees to improve employee performance. Otherwise inadequate work environment will be able to decrease employee performance. A work environment is said to be good when people can carry out activities optimally, healthy, safe, comfortable.

V. Conclution

Based on the analysis and discussion of the data on Conirmatory Factor Analysis on improving employee performance in Medan, it can be concluded as follows: Through a test factor analysis there are 2 (two) factors that affect the improvement of employee performance, the factors are: the first factor is the working ability with the loading Factor value of 0.887. The second factor is a working environment with a loading factor value of 0.876. Test results of double linear regression analysis that there is a positive and significant influence between working ability and working environment towards improving employee's performance.

Reference

[1]. A A Anwar Prabu Mangkunegara, (2009) : *Evaluasi Kinerja Sumber Daya Manusia*. Bandung : Refika Aditama
[2]. AA. Anwar Prabu Mangkunegara, 2000. Manajemen Sumber Daya Manusia Perusahaan. Bandung : PT Remaja Rosdakarya.
[3]. Ardana, K.I., Mujiati N., Utama, M.W., (2012). Manajemen Sumber Daya Manusia, Cetakan Pertama, Penerbit PT. Graha Ilmu, Yogyakarta.
[4]. Donni Juni Priansa (2014)Perencanaan dan Pengembangan SDM.
[5]. Etta Mamang Sangadji dan Sopiah., (2010). Metedologi Penelitian-Pendekatan Praktis dalam Penelitian. Yogyakarta.
[6]. Gary Dessler, (2003), Manajemen Sumber Daya Manusia,
[7]. Hasibuan , Malayu S.P. (2002). Manajemen Sumber Daya Manusia. Bumi Aksara. Jakarta.
[8]. Hasibuan, Malayu S.P. (2010) Manajemen Sumber Daya Manusia edisi revisi. Jakarta: PT Bumi Aksara Jakarta: Penerbit Salemba Empat, 2002
[9]. Koesmono, Teman. (2005). Pengaruh budaya organisasi terhadap motivasi dan kepuasan kerja serta kinerja karyawan pada sub sektor industri pengolahan kayu skala menengah di Jawa Timur. *Jurnal Manajemen dan Kewirausahaan*. Vol. 07. Hal 171-188.
[10]. Kreitner, Robert dan Kinicki, Angelo. (2005). Perilaku Organisasi, buku 1 dan 2, Jakarta : Salemba Empat.
[11]. Marwansyah, (2010) : *Manajemen Sumber Daya Man*usia Edisi Kedua.Bandung : Alfabeta
[12]. Mathis, Robert L. dan John H. Jackson. (2002). Manajemen Sumber Daya Manusia, Edisi Pertama Salemba Empat, Jakarta
[13]. Moekijat, (2010) : *Sumber Daya Manusia*. Bandung : CV. Mandar Maju.
[14]. Panggabean. S, Mutiara. 2004. Manajemen Sumber Daya Manusia. Ghalia Indonesia : Bogor.
[15]. Raymond J. Stone. (2005) Human Resource Management fifth edition. Australia: John Wiley & Sons
[16]. Rusiadi, et al. (2013). *Metode Penelitian Manajemen, Akuntansi dan Ekonomi Pembangunan, Konsep, Kasus dan Aplikasi SPSS, Eviews, Amos, dan Lisrel*. Cetakan pertama. Medan: USU Press.
[17]. Sedarmayanti, (2010) : *Manajemen Sumber Daya Manusia Reformasi Birokrasi dan Manjemen Pegawai Negeri Sipil*. Bandung : PT. Refika Aditama.
[18]. Siswanto Sastrohadiwiryo. 2002. Manajemen Tenaga Kerja Indonesia Pendekatan Administrasi dan Operasional. Jakarta : Bumi Aksara
[19]. Veithzal Rivai, (2009) : *Manajemen Sumber Daya Manusia Untuk Perusahaan*. Jakarta : Rajawali Pers.
[20]. Yamin, Sofyan.(2009).Structural Equation Modeling: Belajar Lebih Mudah Teknik Analisis Data Kuesioner dengan Lister-PLS.Jakarta:Salembainfotek
[21]. Yussy Santoso, Ronnie R. Rasman., (2015). Organization Design And Job Analysis.