

# Employee Performance Assessment with Behaviorally Anchor Rating Scale (BARS) Approach: A Case Study

Khairul Hadi<sup>1,2</sup>, Isdaryanto Iskandar<sup>2</sup>, Fitriadi<sup>1</sup>, Mohd Ariqah<sup>1</sup>

<sup>1</sup>Industrial Engineering Departement, Engineering Faculty, Universitas Teuku Umar, Indonesia

<sup>2</sup>Faculty of Engineering, Atma Jaya Catholic University of Indonesia

**Abstract:-** Performance appraisal has an important role and function for a company, this will of course be related to decisions that will be taken by the company as a company strategy in the future. This also applies to the company PT. Pertamina (Persero) I Meulaboh which is a company engaged in oil distribution that markets Premium, Solar, and Kerosene products with a capacity of 8,001 KL (KiloLiter). The assessment is currently running at PT. Pertamina (Persero) I Meulaboh is an assessment based on criteria, but currently the assessment of these criteria does not have a standard standard so that employee assessments run subjectively, this creates problems for employees so that the current assessment is deemed less effective and not in line with company goals . As a result, employees feel uncomfortable and unmotivated at work. To overcome these problems, an employee performance appraisal was compiled based on the formulation of the Behaviorally Anchor Rating Scale (BARS) method, the formulation of the BARS method is expected to overcome problems in employee performance appraisal which were originally subjective to become more objective, where in the end the employees of PT. PT. Pertamina (Persero) I Meulaboh can work comfortably and have high work motivation.

**Keywords:-** Behaviorally Anchor Rating Scale (BARS), Employee Performance Assessment.

## I. INTRODUCTION

Human resources have a very important role for a company, the activities carried out by companies to form quality human resources are work skills, work abilities, and work loyalty to the company or organization. One of the important activities of human resources is the performance appraisal of an employee or employee performance appraisal. Every company certainly wants and has employees whose performance productivity and performance are in accordance with the standards set by the company, then the performance appraisal can be said to be productive or effective if it includes two things, namely the existence of a set of standards and information. communication (feedback) (Mathis and Jackson 2006: 382).

The incident that has occurred so far is the company's distrust of employees, where the employee's performance is not too noticed by the company. Employee performance also receives less attention, especially in terms of salary, when in fact the company will provide incentives if employees have optimal performance and increase production without any pressure from the company. So that initially many employees resigned and left the company.

PT. Pertamina (Persero) I Meulaboh has employees whose current performance is still very less productive, such as starting from the emergence of employee complaints, decreasing employee motivation, to the high work intensity of employees. The focus is on knowing how productive an employee is and whether he or she will do the same or more effectively in the future, so that both the employee and the organization benefit.

To be able to review the problems that occur in employee performance, companies can increase their productivity towards employees to obtain maximum feedback to the company. The formulation of the Behaviorally Anchor Rating Scale (BARS) method is one way to be able to see whether or not employees are effective in the future by assessing or comparing one employee to another. The formulation of this method because it can be the right solution in assessing the behavior of employee performance, especially in the company PT. Pertamina (Persero) I Meulaboh.

The purpose of this study was to re-plan the layout of the salted fish production facility to minimize the mileage of workers and raw materials at SMES Stefen Aluy.

## II. RESEARCH METHODS

This research was conducted at PT. Pertamina (Persero) I Meulaboh, having its address at Jalan Tomb of Heroes No. 2 Meulaboh, West Aceh, Indonesia. The current employee performance at PT. Pertamina (Persero) I Meulaboh is still not very productive. To increase employee performance productivity can be done by using the Behaviorally Anchor Rating Scale (BARS) Formulation method, where employees at PT. Pertamina (Persero) I Meulaboh became the object of this research. Figure 1 shows the stages carried out in the research, and is shown in the form of a research flow chart.

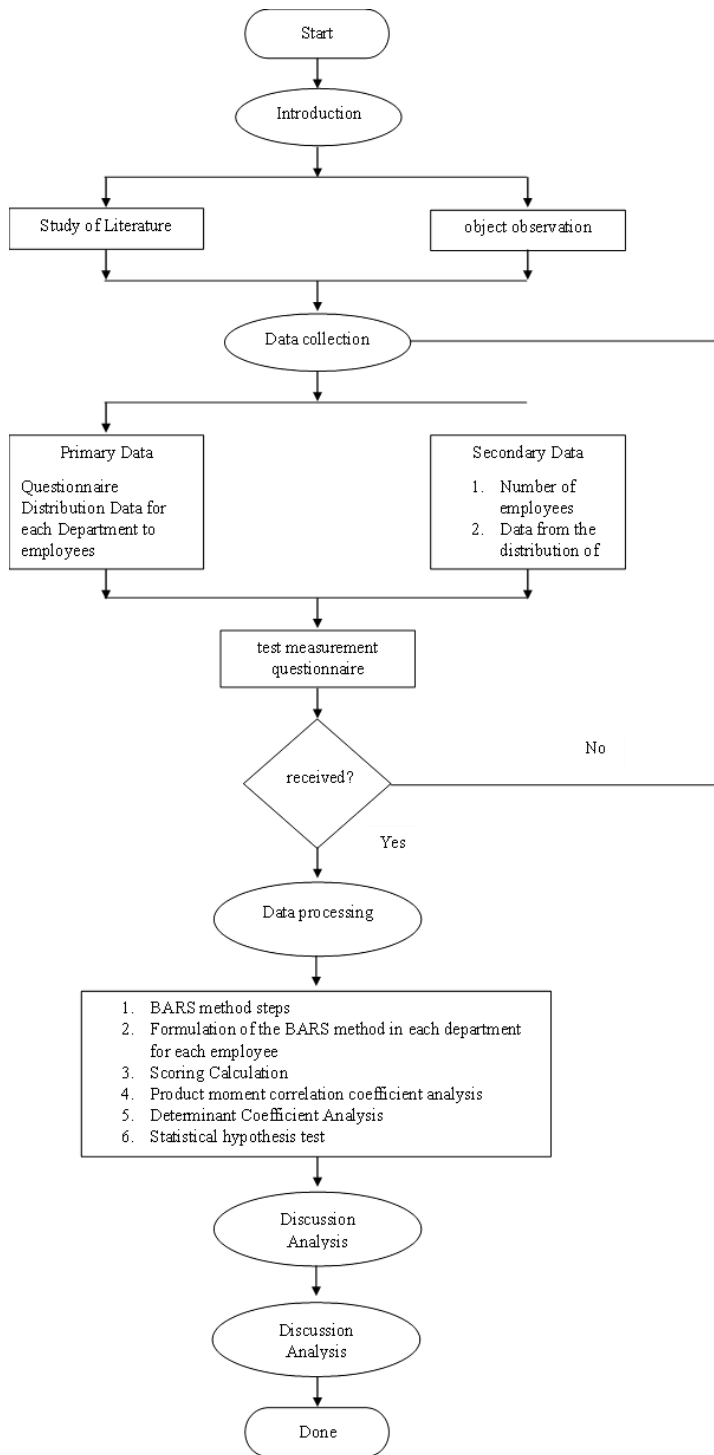


Fig 1. Research Flow Chart

**III. RESULTS AND DISCUSSION**

To facilitate this research, in evaluating employee performance, the Behaviorally Anchor Rating Scale (BARS) method is used to assess the dimensions of employee work behavior and can assess the performance appraisal criteria of each employee, which can be seen in the table for the BARS method formulation.

Table 1 of Formulation of Behaviorally Anchor Rating Scale (Bars) Method

Indicator	Rating	Anchor
Discipline	5	On time consistently with 0% delay
	4	Attendance rate above 95%
	3	Present but sometimes like to come late on condition that you have to get permission
	2	Absence rate above 10% and arriving late
	1	Often comes late and absent records are not clear
Responsibility	5	Always do the assigned tasks and complete the task on time and the results according to the leadership's instructions
	4	Always do the assigned tasks and complete assignments on time even though sometimes make mistakes
	3	Doing the given task even though it is late and not according to what was ordered
	2	Doing assignments but often finishing late and encountering many mistakes
	1	Often do not do the assigned tasks
Teamwork	5	Able to communicate and coordinate with various parties, as well as respect the opinions and input of others consistently
	4	Knowing other people's duties related to theirs and willing to consider suggestions from others
	3	Knowing the outline of other people's duties related to their duties and sometimes having to make sure first to adjust their income
	2	Reluctant to accept joint decisions if they conflict with his opinion and do not know for sure the duties of others related to him
	1	Completely unable to coordinate and communicate with various parties and unable to respect the opinions of others
Leadership	5	Act decisively and impartially and set an example
	4	Act decisively and impartially and set an example
	3	take sides but stay within reasonable limits
	2	Sometimes easily influenced

	1	Unable to act decisively and impartially
Problem solving and Decision Taking Skills	5	Able to formulate alternative solutions that are relevant and applicable to solve problems
	4	Creating temporary solutions to problems that occur
	3	Able to make decisions without considering reactions from subordinates
	2	Prioritize personal interests when making decisions
	1	Refuse to make decisions when needed

Indicator	Rating	Anchor
Obedience	5	Always obey the rules and work procedures and follow the instructions given by the boss
	4	Sometimes not complying with work rules and procedures and following instructions given by superiors but still within reasonable limits
	3	Not obeying the rules and work procedures and following instructions given by superiors but still within reasonable limits
	2	Sometimes violates work rules and procedures as well as instructions from superiors
	1	Often violates work rules and procedures as well as instructions given by superiors
Honesty	5	Always report the results of his work to his superiors according to the actual situation
	4	Sometimes does not report his work to superiors based on the actual situation
	3	The work results reported to superiors do not match the actual situation but are still within tolerance limits
	2	Sometimes the work results reported to their superiors are better than the actual situation
	1	Often reports that his work is not in accordance with the actual situation
Self Motivation	5	Doing tasks with extraordinary effort by accepting all the consequences
	4	Doing more than expected
	3	Doing the task as expected
	2	Need extra push to do the job
	1	Ignoring the assigned task
Analitical Thinking	5	Make complex analyzes or plans
	4	Seeing complex relationships between problems

Achievement Orientation	3	Able to see basic relationships between problems
	2	Able to use problem
	1	Can't decipher the problem at all
	5	Set a mature goal
	4	Improve work performance
Inovatif	3	Meet the standards set by management
	2	Want to work well
	1	Just focus on working without thinking about the target you want to achieve
	5	Doing new things at the organizational level that causes the company to have better performance
	4	Doing new things at the departmental level so as to improve departmental performance
	3	Doing new things at the division level so as to improve division performance
	2	Doing new things to improve work performance
	1	Not doing anything new

*A. Critical Incident*

In making BARS is to identify critical incidents, by looking for various references. The factors that affect performance (Mahmudi, 2007) consist of 3 groups of performance which are divided into the performance of each group, namely individual performance, team performance and organizational performance. In evaluating the performance of employees at PT. Pertamina (Persero) I Meulaboh uses the formulation of the Behaviorally Anchor Rating Scale (BARS) method which consists of 2 variables, namely Organization Performance and Employee Performance Productivity.

*B. Performance Dimension*

Find the performance dimensions for each dimension. This step was carried out using the Stratified Random Sampling method which involved 9 departments of all workers at PT. Pertamina (Persero) I Meulaboh. The results of the Stratified Random Sampling method formulate the total number of 50 populations (behaviors) into 34 populations.

*C. Allocating Events*

The regrouping of events into the formulation of the Behaviorally Anchor Rating Scale (BARS) method which consists of 2 variables, namely Organizational Variables and Employee Performance Productivity Variables. Organizational Variable (X) consists of 6 questionnaires, namely, Teamwork/Cooperation, Problem-Solving and Decision-Making/Spatial Solving Skills, Problematic and Decision-Making Skills, Analytical Thinking/Analytical Thinking, Achievement Orientation/Achievement Oriented, Innovative. Employee Performance Productivity Variable (Y) consists of 6 lists of questions, namely, Discipline, Responsibility, Leadership/Leadership, Compliance, Honesty,

Self-Motivation/Self-Motivation, which are distributed to each department to employees of PT. Pertamina (Persero) I Meulaboh.

*D. Occurrence Scale*

Giving a scale (value) involving 34 respondents who are grouped into 2 variables, namely Organizational Variables and Employee Performance Productivity Variables. The respondent's data is then added up to find out the percentage value of the total answers from the 34 respondents involved, which has a percentage smaller than the average percentage, so it is considered invalid. The results for each variable can be seen in Table 2.

Table 2. Number of Valid And Invalid Incidents For Each Indicator

Indicator	Question	Incident			
		Number of Incident	Amount	Valid	Invalid
Teamwork/ Cooperation	P1	34	0,573	Valid	-
	P2	34	0,94	Valid	-
	P3	34	0,573	Valid	-
	P4	34	0,836	Valid	-
	P5	34	0,94	Valid	-
Problem Solving And Decision Taking Skills / Spatial Solving	P1	34	0,945	Valid	-
	P2	34	0,841	Valid	-
	P3	34	0,786	Valid	-
	P4	34	0,922	Valid	-
	P5	34	0,899	Valid	-
Analytical Thinking	P1	34	0,689	Valid	-
	P2	34	0,822	Valid	-
	P3	34	0,538	Valid	-
	P4	34	0,689	Valid	-
	P5	34	0,783	Valid	-
Achievment Orientation	P1	34	0,81	Valid	-
	P2	34	0,851	Valid	-
	P3	34	0,78	Valid	-
	P4	34	0,603	Valid	-
	P5	34	0,81	Valid	-
Inovatif	P1	34	0,685	Valid	-
	P2	34	0,864	Valid	-
	P3	34	0,606	Valid	-
	P4	34	0,603	Valid	-
	P5	34	0,864	Valid	-
Discipline	P1	34	0,983	Valid	-
	P2	34	0,951	Valid	-
	P3	34	0,983	Valid	-
	P4	34	0,685	Valid	-
	P5	34	0,819	Valid	-
Responsibility	P1	34	0,892	Valid	-

P2	34	0,563	Valid	-
P3	34	0,677	Valid	-
P4	34	0,787	Valid	-
P5	34	0,828	Valid	-

Indicator	Question	Incident			
		Number of Incident	Amount	Valid	Invalid
Leardership	P1	34	0,942	Valid	-
	P2	34	0,917	Valid	-
	P3	34	0,709	Valid	-
	P4	34	0,935	Valid	-
	P5	34	0,924	Valid	-
Obedience	P1	34	0,939	Valid	-
	P2	34	0,652	Valid	-
	P3	34	0,884	Valid	-
	P4	34	0,939	Valid	-
	P5	34	0,875	Valid	-
Honesty	P1	34	0,848	Valid	-
	P2	34	0,759	Valid	-
	P3	34	0,848	Valid	-
	P4	34	0,727	Valid	-
	P5	34	0,818	Valid	-
Self Motivation	P1	34	0,703	Valid	-
	P2	34	0,716	Valid	-
	P3	34	0,71	Valid	-
	P4	34	0,69	Valid	-
	P5	34	0,788	Valid	-

*E. Developing the End Device*

in making the Behaviorally Anchor Rating Scale (BARS) instrument based on the Formulation of the BARS Method by placing it in good, medium, and bad groups. The formulation of the Behaviorally Anchor Rating Scale (BARS) method for each bar of the scale describes the position of the value from 1 to 5 with events as anchors (questions) for good, moderate, and bad criteria. An example of an instrument for formulating the Behaviorally Anchor Rating Scale (BARS) method can be seen in Figure 1.

*F. Analysis of Product Moment Correlation Coefficient*

The correlation coefficient shows a close relationship between the Independent Variable (X) of the Organization and the Bound Variable (Y) of Employee Performance Productivity.

Table 3. Calculation Of Product Moment Correlation

No	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1	96	108	9216	11664	10368
2	68	92	4624	8464	6256
3	87	115	7569	13225	10005
4	78	96	6084	9216	7488
5	77	90	5929	8100	6930

6	92	108	8464	11664	9936
7	85	102	7225	10404	8670
8	71	87	5041	7569	6177
9	103	96	10609	9216	9888
10	82	83	6724	6889	6806
11	86	82	7396	6724	7052
12	86	113	7396	12769	9718
13	74	79	5476	6241	5846
14	68	95	4624	9025	6460
15	70	93	4900	8649	6510
16	72	92	5184	8464	6624
17	67	86	4489	7396	5762
18	83	89	6889	7921	7387
19	78	90	6084	8100	7020
20	80	93	6400	8649	7440
21	101	130	10201	16900	13130
22	100	134	10000	17956	13400
23	86	122	7396	14884	10492
24	97	141	9409	19881	13677
25	104	127	10816	16129	13208
26	102	145	10404	21025	14790
27	105	146	11025	21316	15330
28	100	147	10000	21609	14700
29	108	128	11664	16384	13824
30	104	138	10816	19044	14352
31	103	150	10609	22500	15450
32	94	147	8836	21609	13818
33	94	124	8836	15376	11656
34	106	141	11236	19881	14946
<b>Total/Σ</b>	<b>3007</b>	<b>3809</b>	<b>271571</b>	<b>444843</b>	<b>345116</b>

The meaning of table 3 above is to explain the results of the total score for the Organizational Variable (X) and Employee Performance Productivity Variable (Y) from respondent 1 to respondent 34. After knowing the total value from table 3 above, the correlation coefficient value (rxy) is calculated . is as follows:

$$r_{xy} = \frac{(N.\Sigma xy) - (\Sigma x.\Sigma y)}{\sqrt{[(N.\Sigma x^2) - (\Sigma x)^2] [(N.\Sigma y^2) - (\Sigma y)^2]}} \quad (1)$$

$$r_{xy} = \frac{(34)(345116) - (3007)(3809)}{\sqrt{[(34)(271571) - (3007)^2] [(34)(444843) - (3809)^2]}} \quad (2)$$

$$r_{xy} = \frac{11733944 - 11453663}{343388} = \frac{280281}{343388} = 0,81 \quad (3)$$

This means that the relationship between Organizational Variables and Employee Performance Productivity Variables is 0.81 which is included in the Very Strong category according to the Product Moment Correlation Coefficient Interpretation table.

**G. Determinant Coefficient Analysis**

The value of the determinant coefficient is used to determine the effect of the Independent Variable with the Bound Variable, it can be seen as follows:

$$\text{Determinant coefficient} = (0,81)^2 \times 100\% = 66,61\% \quad (4)$$

This means that Organizational Variables have a large effect on Employee Performance Productivity Variables, namely 66.61% while the remaining 100% - 66.61% = 33.37%.

**H. T Test (Partial Test)**

Used to determine the effect of each factor in Organizational Variables with Employee Performance Productivity Variables. Based on the results of data processing on each factor are as follows:

Ha = There is an influence

Ho = No effect

$$Df = n - k = 34 - 11 = 23$$

$$T \text{ Count} = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \quad (4)$$

$$= \frac{0.9077\sqrt{34-2}}{\sqrt{1-(0.9077)^2}} = 12,2334 \quad (5)$$

$$T \text{ Table} = (\alpha, n) = (0.05, 23) = 1,713 \quad (6)$$

Table 4. Table Of T Test Results (Partial Test)

Factor	T Count	T Table	α	Information
Teamwork/ Cooperation	12,2334	1,713	0,05	Significant
Problem Solving And Decision Taking Skills	12,0285	1,713	0,05	Significant
Analitical Thinking	9,5782	1,713	0,05	Significant
Achievment Orientation	1,2227	1,713	0,05	Not significant
Innovative	1,0866	1,713	0,05	Not significant
Discipline	5,8207	1,713	0,05	Significant
Responsibility	7,5838	1,713	0,05	Significant
Leadership	6,3114	1,713	0,05	Significant
Obedience	4,5933	1,713	0,05	Significant
Honesty	6,4468	1,713	0,05	Significant
Self Motivation	5,8300	1,713	0,05	Significant

**I. F test (simultaneous test)**

Used to determine the effect of Organizational Variables on Employee Performance Productivity Variables. Based on the results of data processing obtained the following results:



Ho = no effect on work productivity  
 Hi = affect on work productivity

$$S_1^2 = \frac{\frac{\sum (\sum x_1)^2 + (\sum x_2)^2 + (\sum x_3)^2 + \dots + (\sum x_{25})^2}{n} - \frac{(\sum x)^2}{n - k}}{k - 1} \quad (7)$$

$$S_1^2 = \frac{\frac{\sum (137)^2 + (96)^2 + (137)^2 + \dots + (133)^2}{34} - \frac{(3007)^2}{34 - 5}}{5 - 1} = 269 \quad (8)$$

$$S_2^2 = \frac{\frac{\sum (\sum x_1)^2 + (\sum x_2)^2 + (\sum x_3)^2 + \dots + (\sum x_{25})^2}{n} - \frac{(\sum x)^2}{n - k}}{k(n - 1)} \quad (9)$$

$$S_2^2 = \frac{\frac{\sum (137)^2 + (96)^2 + (137)^2 + \dots + (133)^2}{34} - \frac{(3007)^2}{34 - 5}}{5(34 - 1)} = 65,3 \quad (10)$$

$$F \text{ Count} = \frac{S_1^2}{S_2^2} = \frac{269}{65,3} = 4,12 \quad (11)$$

$$Df1 (N1) = k - 1 = 11 - 1 = 10 \quad (12)$$

$$Df2 (N2) = n - k = 34 - 11 = 23 \quad (13)$$

$$F \text{ Table} = 0,05 = 2,27$$

Based on these results, it is known that the F Count value at a significant level of 0.05 is greater than F Table, with an F value of 4.12 > F. The table with a value of 2.27 states that the influence of Organizational Variables on Employee Performance Productivity Variables on Hypothesis Testing Results at F count is 4.12.

#### IV. CONCLUSION

Based on the results of the product moment correlation coefficient, the magnitude of the influence of Organizational Variables on Employee Performance Productivity Variables at PT. Pertamina (Persero) I Meulaboh obtained a result of 0.81 which is classified in the Very Strong category according to the interpretation table of the product moment correlation coefficient. The results of the test with the determinant coefficient showed that the Organizational Variable had a large effect on the Employee Performance Productivity Variable of

66.61% while the remaining 100% - 66.61% = 33.37%. And the results of the Hypothesis Testing on the T-Test and F-Test, then for the T-Test at a significant level of 0.05 for Teamwork Factor of 12.2234, Problem Solving And Decision Making Skills of 12.0285, Analytical Thinking of 9.5782, Discipline 5,8207, Responsibility 7,5838, Leadership 6,3114, Compliance 4,5933, Honesty 6,4468, and Self-Motivation 5,8300. The results of T arithmetic > T table are 12.2234 > 1.713 then Ho is rejected and Ha is accepted, which states that each factor in Organizational Variables has an influence on Employee Performance Productivity Variables. As for the Achievement Orientation Factor of 1.0866, and 1.0866 Innovative, which states that the Achievement and Innovative Orientation Factor on Organizational Variables has no effect on Employee Performance Productivity Variables, so Ha is rejected and Ho is accepted And for the results of the F test at a significant level of 0.05, the F value is greater than the F table, then the calculated F value is 4.12 > F table with a value of 2.27 stating that the influence of Organizational Variables on Employee Performance Productivity Variables on the results of Hypothesis Testing on F Count is 4.12.

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