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## ***ASSESSMENT OF EMPLOYEE PERFORMANCE WITH THE BEHAVIORALLY ANCHORED RATING SCALE (BARS)***

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### **ABSTRACT**

PT. JAVFLO CIPTA MANDIRI is a company engaged in the Mechanical-Electrical field and has an office located in Bandung. Currently, the process of evaluating employee performance on Key Performance Indicators is still being done conventionally and using the rating scale method in calculating employee performance appraisals. A rating scale or measurement scale is a tool for collecting data in the form of lists containing characteristics or behaviors that must be recorded in stages to facilitate the selection of research data. Therefore, we need a system that can solve these problems. The assessment method used is the Behaviorally Anchored Rating Scale (BARS) to determine the value of employee performance and the application used is SPSS (Statistical Product and Service Solutions). The purpose of this data processing is to determine the value of employee performance with the Behaviorally Anchored Rating Scale method with the SPSS application. The sample data submitted to the results of this study amounted to 3 employees with the research results, for the scale averages obtained the values 4.2, 4.3, and 4.1 with the description results of good value.

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## **1. INTRODUCTION**

The new way of life has emerged as a result of the advancement of information technology. This way of living, dubbed "e-life," is already influenced by numerous technological demands. Information has been able to go incredibly far in the modern era because of communication technology. Today, communication is facilitated by the availability of newspapers, telegraphs, phones, printing presses, radios, televisions, and even the Internet. The advancement of technology has many advantages and makes it easier for people to go about their daily lives. Modernity is defined by economic progress, social mobility, and cultural expansion as a result of technological advancements. With the help of technology, everything is easier for us to do, the faraway is closer, and communication can also add knowledge. Through various forms of communication, such as video calls, video conferences, and many more examples, we may also get to know anyone around the world without any limits. When a person employs tools and their minds to tackle every difficulty they encounter, technological growth takes place. In order

to evaluate employee performance, information technology can therefore be used as part of an information system. Information technology and management knowledge work together as a mediating factor to affect how well the organization performs. testing, which means that this research aims to shed light on the phenomenon by examining how the variables are related in the context of a cause-and-effect chain.

The development of the world of technology from year to year is growing very rapidly and has an effect on the lives of the wider community. almost all agencies use technology to facilitate their work, starting from the government sector, education, or private companies that use computers for an information system that is useful for completing all existing work, such as storing all important files to preparing reports. PT. JAVFLO CIPTA MANDIRI (JCM) is a Contracting Company engaged in the Procurement and Construction Services of Electrical, Telecommunication, Mechanical-Electrical, and Renewable Energy. Established in 2013 to support National Development, especially in the electricity and telecommunications sectors.

PT. JCM performance appraisal is carried out periodically, namely within 1 year. Assessment considerations are influenced by percentage/attendance, work realization, and employee character. Attendance is made when entering the office in the morning and when leaving the office in the afternoon. Assessment of work realization is based on the quality of work and the speed at which employees complete a job as seen from the reports submitted to the director every week.[1]Then the employee character assessment is carried out every day when the employee is summoned by the director when there are obstacles to the employee's work. The valuation process is still conventional and calculating values is still using a calculator. However, this is considered inefficient for assessing employee performance because it has not been computerized so the assessment process requires quite a long time.[2] Based on some of the problems above, to obtain data accuracy, objectivity in the assessment process, and speed of time in the assessment, an information system is needed that can properly assist the process of evaluating employee performance. Of the several possible methods, the authors chose the Behaviorally Anchored Rating Scale (BARS) method.[3]So this study will be carried out as a performance appraisal on the employees of PT. JCM. Therefore, it is necessary to do this research so that it can complete the evaluation process of the performance of PT employees. Java is on its own.

## 2. METHODS

### 2.1 System Decision Support

Decision Support System (DSS) or Decision Support System (DSS) is a system that has the ability to solve problems or communicate in semi-structured and unstructured situations.[4]In addition, this system is also used to assist in making decisions in semi-structured and unstructured situations, where there is no certainty about how decisions should be taken. The purpose of this decision support system is to provide information, provide guidance, provide predictions, and direct users of information to make better decisions.[5]

2.1.1 Characteristics of Decision Support Systems Decision Support Systems are designed to assist decision makers in solving structured or unstructured problems. In its processing, the Decision Support System combines the use of analytical models or techniques with conventional data entry techniques and information search/interrogation functions. The Decision Support System is designed in such a way that it can be used or operated easily by people who do not have high basic computer operating skills. Therefore, the approach used is usually an interactive model. Decision Support Systems are designed with an emphasis on aspects of flexibility and high adaptability. So that it is easy to adapt to various environmental changes that occur and user needs.

### 2.1.2 Purpose of Decision Support Systems

- a. Ease the task of the Human Resource Department (HRD) in making decision support.
- b. Assist the Human Resource Department (HRD) in making decision support.
- c. The results of decisions taken by the Human Resource Department (HRD) are more effective.
- d. Fast calculation.
- e. Increase production power.
- f. Quality support.
- g. Reducing cognitive limitations in processing and storage.

## 2.2 Behaviorally Anchored Rating Scale

The performance appraisal method with the Behavioral Anchor Rating Scale model is an assessment method that combines work behavior approaches with personal characteristics. The Behaviorally Anchor Rating Scale method consists of a series of 5 to 10 vertical behavioral scales for each performance indicator. For each dimension, 5 to 10 Anchors are arranged. The anchor in question, namely behavior that shows performance for each dimension. The anchors are arranged from the highest value to the lowest value. The anchor can be a critical incident obtained through job analysis. This method is generally developed by a team consisting of Human Resources specialists, managers, and employees.[6]This team is tasked with identifying the characteristics of the performance dimensions and identifying 5 to 10 specific events for each dimension. Then, the special incident is reviewed and assessed by all team members. The selected special events are then placed on a scale from the highest to the lowest scale.[3][7]

BARS or Behaviorally Anchored Rating Scale has several advantages, namely:

- a. More accurate size. The people who developed the Behavioral Anchor Rating Scale method were those who were experts in the field of HR besides that it also involved people who knew the job and its requirements better than anyone else. This should result in job performance with good accuracy.
- b. Clearer standards. Critical incidents along the scale define what to look for in terms of superior performance, average performance and so on.
- c. Feedback. Critical incidents make it easy to assign a rating to those being assessed
- d. Independent dimension. Systematically categorizing critical incidents into five to ten job dimensions (such as "selling skills") should help to make the performance dimensions more independent of one another. For example, raters would prefer not to rate an employee highly on all dimensions simply because he or she ranks highly on "skills of a salesperson".
- e. Consistency. Performance appraisal based on the Behavioral Anchor Rating Scale method also seems relatively consistent and reliable, because the ratings given by different raters to the same person will tend to be the same.[8]

The Behavioral Anchor Rating Scale method in its implementation requires at least five stages, namely:

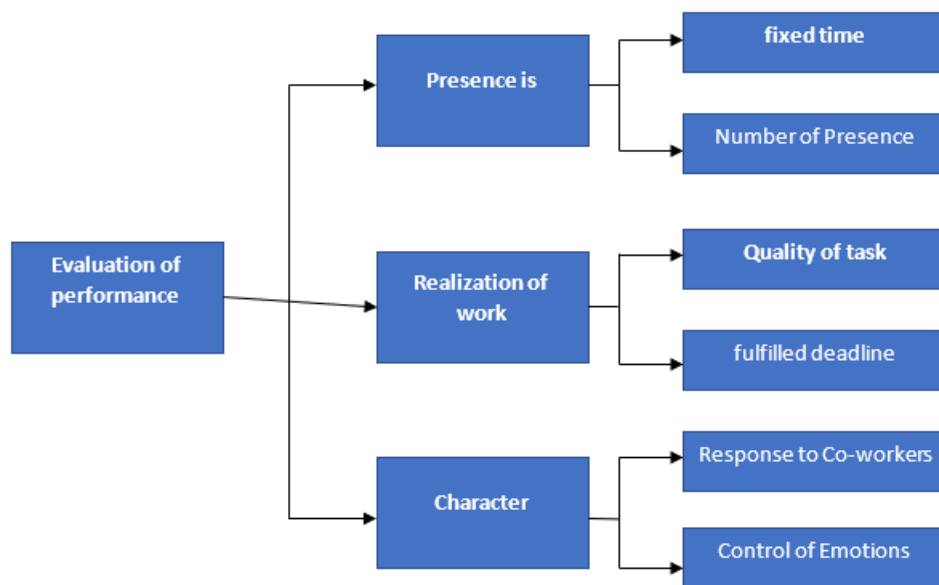
- a. Create critical incidents. This is done by asking someone who knows the job (position holder and/or supervisor) to explain specific illustrations (critical incidents) of effective and ineffective performance or can be done by way of job analysis.
- b. Develop performance dimensions where in this stage the events are grouped into smaller groups of work dimensions and each dimension is defined, such as "skills to sell".
- c. Re-allocate events. Another group of people who also know this work then reallocate this critical incident from scratch. They define clusters and critical events, and must reassign each event to the group they deem most appropriate.
- d. Scale events. Rank the behavior described by the event by how effective and efficient it is. Each behavior represents performance on its dimensions.
- e. Developing the final device. Select about five to ten occurrences as the standard behavior for that dimension.[9]

### 3. RESULTS AND DISCUSSION

This research will create a decision support system in assessing employee performance in a company using the BARS method.

#### 3.1. Performance assessment

The method previously used to process employee performance appraisal data was the Behaviorally Anchored Rating Scale method. This method is used because it has a more accurate size. In this simulation the author tries to explain the weighting of variables and indicators that are used as a reference for evaluation, determining the scale of the results of employee performance appraisals, and explaining the calculation of employee performance appraisals based on the work of employees at PT. JAVFLO. The process of evaluating the performance of employees in this office starts from determining the variables, indicators, and the weight of each indicator that has been determined by PT. The JAVFLO in the image below is in Figure 1.



Figures 1 Performance appraisal indicators

For the performance appraisal indicators that match Figure 1, the BARS method will be used to formulate ratings for each employee evaluation criterion.[10]

#### 3.2. Calculation of the Behaviorally Anchored Rating Scale (BARS)

The formulation of the BARS method can be seen in the BARS method framework table below:

*Table 1 Formulation with the Behaviorally Anchored Rating Scale method*

No	Indicator	Ratings	Anchor	Weight
1	Punctuality	5	Show up on time consistently	20
		4	A few days came too late	
		3	Coming late >5 days	
		2	Coming late >10 days	
		1	Always late	
2	Total Attendance	5	Present every working day	15
		4	Attendance rate >85% with the condition of obtaining a permit	
		3	Absence of work >10 days	

No	Indicator	Ratings	Anchor	Weight
3	Assignment Quality	2	Attendance rate >50%	20
		1	Absence records are not clear	
		5	Always do tasks according to instructions	
		4	Doing the tasks given is not right with what was instructed	
		3	Sometimes they make mistakes in doing assignments	
		2	The work done has a lot of mistakes	
4	Deadline Fulfillment	1	The tasks that are done are always not in accordance with the instructions	15
		5	Always do assignments on time	
		4	Completed assignments and was late several times	
		3	Sometimes - sometimes late in completing assignments	
		2	Often late in completing assignments	
5	Response to Colleagues	1	Often does not carry out assigned tasks	15
		5	Able to communicate and coordinate with various parties consistently	
		4	Know the duties of others related to their duties	
		3	Knowing the outline of other people's duties related to their duties	
		2	Does not know the exact duties of others associated with him	
6	Emotional Control	1	Completely unable to coordinate and communicate with various parties	15
		5	Always able to control emotions	
		4	Sometimes you can't control your emotions	
		3	Sometimes - unable to control emotions	
		2	Often unable to control emotions	
		1	Unable to control emotions	

### 3.2.1. BARS Formula Calculation

In this study, the BARS calculation will be used:

- Formulas for each Indicator

$$\text{Value} = \text{Scale} \times \text{weight}$$

- The formula for each sub criteria

$$\text{Sub Criteria Value} = \text{Sub valuecriterion 1} + \text{value of sub-criterion 2} + \text{value of sub-criterion n}$$

- The formula for each criterion

Criterion Value = Criterion 1 value + Criterion 2 value + Criterion value n

- Final Value Assessment Formula

$$\text{Final Average} = \frac{\text{sum of the terms}}{\text{number of the terms}}$$

### 3.2.2. BARS Formula Data Sampling

*Table 2 Sample employee data*

No	Employee name
1	Adi
2	Benny
3	Sarah

The following is the calculation of the value of each employee

- Name : Adi  
Division : Finance

*Table 3 Employee Criteria Value*

No	Criteria	Ratings	Mark
1	Punctuality	4	80
2	Total Attendance	5	75
3	Assignment Quality	4	80
4	Deadline Fulfillment	3	45
5	Response to Colleagues	3	45
6	Emotional Control	5	75
Total			400

*Table 4 Employee Target Value 1*

No	Indicator	Target Reached	Mark
1	Make invoices to customers on time	80%	32
2	Make payment plans on time	85%	25.5
3	Make daily transactions accurately	95%	28.5
Total			86

- Name : Benny  
Division : Engineers

*Table 5 Employee Criteria Value 2*

No	Criteria	Ratings	Mark
1	Punctuality	5	100
2	Total Attendance	4	60
3	Assignment Quality	4	80
4	Deadline Fulfillment	4	60
5	Response to Colleagues	3	45
6	Emotional Control	5	75
Total			420

*Table 6 Employee Target Value 2*

No	Indicator	Target Reached	Mark
1	Finish the picture on time	90%	36
2	Number of drawing revisions	1	24
3	Make a list of material requirements on time	90%	27
		Total	87

3. Name : Sarah

Division : Purchasing

*Table 7 Employee Criteria Value*

No	Criteria	Ratings	Mark
1	Punctuality	5	100
2	Total Attendance	3	45
3	Assignment Quality	4	80
4	Deadline Fulfillment	5	75
5	Response to Colleagues	4	60
6	Emotional Control	3	45
		Total	405

*Table 8 Employee Target Value*

No	Indicator	Target Reached	Mark
1	Ordering materials on time	80%	28
2	Timely completion of RAB	85%	29.75
3	Accuracy of material prices	85%	25.5
		Total	86.25

*Table 9 The average value of the scale*

No	Employee name	Criteria Value	Target Value	Average Criterion Value	Average Target Value	Total	Ket
1	Adi	400	86	4	4,3	4,2	Good
2	Benny	420	87	4,2	4.35	4.3	Good
3	Sarah	405	83.25	4,1	4,2	4.1	Good

#### 4. CONCLUSION

The conclusions that can be drawn from the above analysis are:

1. The employee performance appraisal system using the BARS method is very effective for directors who previously did not have enough time to evaluate their employees.
2. The employee appraisal process which was previously conventional is now computerized with the BARS method.
3. The end result of the employee performance appraisal process using the BARS method is through ranking where there will be feedback where critical events make it easy to explain ratings to the person being assessed.

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