

Integration of 360-degree feedback methods and AHP for employee performance measurement

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Abstract

Assessment of employee performance is important in improving company performance. Performance appraisal takes into account factors that support employee performance in accordance with the aspects reviewed. Usually performance appraisals are carried out only by direct supervisors. The existence of differences in the results of the assessment of superiors with perceived employee perceptions, often results in employee dissatisfaction. Performance appraisal will be better if it involves more than one assessor. A 360 degree feedback method is a method of assessment by involving superiors, peers, and self assessment. Integration of 360-degree feedback methods and analytical hierarchy process (AHP) are used to improve assessment results. The application of this method was carried out on nurses in the care ward of one mental hospital, involving 52 people, consisting of 12 superiors and 40 employees. The results show that the priority factors that influence nurse performances are work competency factors. There is a difference in the value of the gap between the assessment of superiors and employee ratings. The method integration has proven to have reduced the assessment gap level, so that the assessment results will be better.

Keywords

productivity, human resource management, mental hospital, nursing ward, feedback.

1. Introduction

In a company context, employee performance is defined as employee contributions in achieving company goals. Employee performance appraisal is defined as a process to identify, evaluate, and develop employee performance within the company, so that the goals and objectives of the company can be effectively achieved. At the same time, employee performance measurement also benefits employees in terms of recognition, receiving feedback, and offering career guidance (Lansbury, 1988). The company's ability to measure employee performance is the basis for calibrating the effectiveness of other measurement capabilities (Shang, 2004). The definition of performance measurement is often a challenge because organizations have many goals and are often conflicting. The terms performance evaluation, performance evaluation, performance management are also used to describe the performance measurement process (Islam & Rasad, 2006).

Employee performance appraisal has been carried out by many companies since a few centuries ago. Performance appraisal systems have been widely debated by many people. Overall, performance appraisal is seen as an inseparable part of organizational life. Formal performance appraisal must be an important part of the organization, because formal assessments are needed as a basis for various human resource decisions, such as salary increases, promotions, demotions, terminations, and are also needed to determine employee training needs (Longenecker & Fink, 1999). High-performance companies practice performance appraisal as a way to create competitive advantage. The application of a performance appraisal system requires sufficient caution. Ineffective scoring systems can bring many problems including low morale, decreased employee productivity, reduced employee enthusiasm and support for the organization (Somerick, 1993).

This study measured employee performance in the care ward of the Regional Mental Hospital (RMH) Surakarta. Mental hospital is a hospital specifically for the treatment of serious mental disorders. Mental hospitals vary greatly in purpose and method. Some hospitals may specialize in short-term or outpatient therapy for low-risk patients. Other people may specialize in temporary or permanent care from citizens who as a result of psychological disorders, require routine assistance, special care and a controlled environment.

Employee performance measurement has only been done by superiors. Some criteria in evaluating employee performance are subjective. Some employees consider that the performance appraisal of superiors alone cannot guarantee fair value. Some employees judge, the results of the assessment are far below the predicted results of the employee's own assessment. This article will discuss the use of employee performance appraisal methods in the RMH Surakarta care unit using the 360 degree feedback method, that is integrated with AHP in determining the factor weight.

2. Literature Review

Performance management has been defined as a strategic and integrated approach to provide sustainable success for the organization by improving the performance of the people who work in it and by developing the ability of teams and individual contributors (Edenborough and Kogan, 2005). There are many types of assessments and many sources for evaluating human resource performance. London (2003) identifies types of performance and resources. First, contextual performance consists of behaviors that show: job dedication (work-task awareness), organizational dedication (organizational citizenship performance), and facilitation interpersonal (interpersonal citizenship performance). Second, task performance consists of activities that directly convert raw materials into goods and services produced by the organization or maintain the technical core of the company by filling inventory, distributing products, and providing functions of planning, coordination, supervision, and staff that enable it to function efficiently. Third, adaptive performance, or learning, can be interpreted as separate from contextual tasks and performance. This is skill with which employees change their behavior to meet the demands of a changing situation.

Various techniques have been developed and used in performance assessment. Employee performance measurement with Human Resource Scorecard (HRSC), is defined as an assessment of human resources to express contributions in aligning organizational strategy. This includes three perspectives such as HR Competency Perspectives - applicable human resources, Perspective of HR Involvement - human commitment and involvement with the organization and work, and finally the HR Performance Perspective - results from humans that are in line with organizational strategy (Murad and Asaduzzaman, 2014). Management by Objective (MBO) is used by management to measure productivity in a way that reveals employee output contributing to the company's goals and targets. Employees should be given clear personal productivity goals to work on, as well as all the instruments and data they need to achieve that goal. (Ntanos and Boulouta, 2012). Quantitative Productivity Measurement (QPM) measures productivity by the amount of components or products produced in a given period of time, such as hourly, day or month. This method works very well for small businesses and also for managing large groups (Garbie, 2008).

Time Management Productivity Measurement, which determines employee productivity by noting how they use their work time. Accurate measurements will reveal how much time is spent on completing work tasks on time, as well as how much time is lost due to illness or excessive rest periods, work-related conversations, and disturbances such as SMS and social media (Chase et al ., 2013). Profit Productivity Measurement uses profit as an effective tool to measure team productivity. In fact, measuring pure productivity in terms of profit obtained becomes the preferred type for the size of many small to medium-sized businesses (Milana, 2006). Quality of Tasks Complete measurement measures productivity only by whether the job assigned is actually performed. He believes that because personal and professional life is increasingly integrated and overlapping, it is most accurate to base productivity measurements on completion of tasks, "not minutes spent in the office." (Hartanti, 2016).

The 360-degree feedback methods use coworker feedback and comments to measure productivity. This method can only be used if employees in your organization interact with each other. Current practices and the use of 360-degree feedback by trainers and consultants are often based on expert opinions, recommendations from vendors, or modes, rather than evidence-based empirical findings or applied evaluation studies. In fact, there is a shortage of well-designed longitudinal research and evaluation studies to guide trainers in effective design, administration, reporting,

interpretation, and the use of a 360-degree feedback system to start and maintain new behavioral changes over time (Nowack, Hartley, & Bradley, 1999). Attention to these evidence-based problems and challenges can help trainers to consider the best approach to using feedback interventions to create desired individual, team and organizational outcomes (Nowack & Mashihhi, 2012).

Employee performance evaluations are designed to assess the contribution of each individual to the organization. Individual performance towards organizational goals determines whether the organization meets its objectives. The basic goal of performance evaluation is twofold: first to reward employees for meeting organizational goals and secondly to identify which goals are not met and to develop action plans to ensure they are achieved in the future (Islam & Rasad, 2006). The AHP method is considered effective to determine the weight of the factors taken into account in the problem. Djunaidi et al., (2018) uses AHP to determine the weighting of the factors applying the green supply chain in the furniture industry. The integration of the use of AHP in 360 degree feedback is also carried out within the framework of determining the weight of the factor assessment. Various factors considered in the evaluation of employees with 360 degree feedback have different weight levels.

3. Research Methods

Research begins with determining the dependent variable that needs to be considered in evaluating employee performance. The search for the dependent variable is carried out by a literature search that discusses employee performance appraisal. Determination of variables is done by polling using questionnaires to respondents. The dominant variable approved by the respondent will be used in subsequent calculations.

The second step is calculating the factor weight using the AHP method. Respondents gave an assessment of pairwise comparisons between factors using a questionnaire. Factors and sub factors that have been selected are assessed through pairwise comparisons between factors and subfactors that are in accordance with the hierarchy that has been prepared previously. This stage gives the value weight of each variable in influencing performance appraisal. At the same time, determination of the weight of the assessor is also done by using pairwise comparison methods between supervisor's assessment, peer assessment, and also self-assessment.

The third step is the assessment of employee performance using the 360 degree feedback method. Completion of each employee's performance appraisal form is carried out by superiors, three colleagues, and employees themselves. Next is to recapitulate the results of employee performance appraisal and analyze it by assessing the measurement gap generated.

4. Result and Discussion

Performance measurement of paramedics assigned to the ward at the Surakarta RMH, which was divided into: women's acute ward, men's acute ward, women's sub-acute ward, and men's sub-acute ward. The number of paramedics involved was 52 people. Table 1 shows the distribution of respondents assessed.

The independent variables used in this study were obtained based on literature studies from research - previous research and interviews which then concluded that there are three main factors that influence the performance of nurses, namely personal characteristics, work competencies, and external factors. Where these variables have several sub-variables that become indicators of direct performance appraisal. The list of selected variables and sub-variables from the literature study includes: (1) personal characters, which include 5 sub-factors: responsible, honest and careful, discipline, personal looks, and assertive, (2) work competencies, which includes 7 sub-factors, namely : run standard operation, carrying out nursing care, doing psychiatric therapy, leadership, decision making skills, teamwork skills and communication skills, (3) external factors which include 7 sub-factors, namely: emotion, motivation, creative and innovative, work commitment, gathering new knowledge, marital status, and salary (Pardosi et al., 2013, Tesfaye et al., 2015).

Respondent's assessment of the influence of sub-factors on personal characters on employee performance appraisal is shown in the Table 2. A total of 28 respondents (53.8%) considered that the sub-factors of personal appearance

did not affect employee performance. Thus, the sub factor of personal appearance is no longer taken into account in the next stage.

Tabel 1. Distribution of respondents

Type of ward	Position	Number of respondents
Women's acute	Paramedics	10
	Peer groups	
	Supervisors	3
Men's acute	Paramedics	13
	Peer groups	
	Supervisors	3
Women's sub-acute	Paramedics	8
	Peer groups	
	Supervisors	3
Men's sub-acute	Paramedics	9
	Peer groups	
	Supervisors	3
Total		52

Table 2. Subfactors from personal characters

No	Sub Factors	Description	Number of Respondents	
			A	NA
1	Responsible	Dare to bear the risk of decisions taken or actions taken	52	0
2	Honest and careful	Report work according to the actual situation	52	0
3	Discipline	Comply with regulations in the hospital	52	0
4	Personal looks	Has an attractive appearance	24	28
5	Assertive	Do not hesitate in carrying out the task	51	1

Note: A (Agree) and NA(Not Agree)

Job competency factors are skills, skills and knowledge that a person has in a field of work. Respondent's assessment of the influence of sub-factors of personal characteristics on employee performance appraisal is shown in the Table 3. In this assessment, almost all respondents agreed that all sub-factors had an influence on employee performance appraisal. Thus, all sub factors of work competency criteria are taken into account in the next stage.

Tabel 3. Subfactors from job competencies

No	Sub Factors	Description	Number of Respondents	
			A	NA
1	Run standard operation	Carry out standard operation procedure suitable in accordance with those specified	52	0
2	Carrying out nursing care	Implement nursing care in accordance with the applicable provisions	52	0
3	Doing psychiatric therapy	Knowing and carrying out the therapeutic process of mental nursing modalities	52	0
4	Communication skills	Communicate clearly with others	51	1
5	Leadership	Influence and direct groups to achieve goals	51	1
6	Teamwork skills	Cooperate and be able to provide encouragement to coworkers so that cooperation can be implemented optimally.	52	0
7	Decision making skills	Able to select various alternative processes to solve a problem	51	1

Note: A (Agree) and NA(Not Agree)

External factors are factors that arise from the outside which can be influenced by other things that make individuals different. Respondent's assessment of the influence of sub factors of external factor on employee performance appraisal is shown in the Table 4. Sub factors emotional, creative and innovative in work, and marital status, are considered not to affect performance by 38 respondents (73.1%), 29 respondents (53.8%), 27 respondents (51.9%), respectively. Thus, external factors only use 4 other subfactors in calculating employee performance.

Table 4. Sub factors from external factor

No	Sub Factors	Description	Number of Respondents	
			A	NA
1	Emotion	Self-emotion can affect the spirit in carrying out work	14	38
2	Motivation	Have a constructive motivation for yourself and others	52	0
3	Creative and innovative in work	Having the ability to create and develop creative new things	23	29
4	Commitment to work	Able to adjust and respect the rules of the organization to help the work team in completing the work	52	0
5	Gathering new knowledge	Interested in gathering new knowledge and developing themselves	52	0
6	Marital status	Marital status has an effect on the work spirit	25	27
7	Salaries	Salary received gives enthusiasm in carrying out work	49	3

Note: A (Agree) and NA (Not Agree)

Correction of the subfactors in the employee performance appraisal by the respondents above resulted in 15 sub-factors influencing the performance appraisal, which included personal character factors (having 4 sub-factors), work competency factors (having 7 sub-factors) and external factors (having 4 subfactors). Using the analytical hierarchy process (AHP) approach, Figure 1 shows the hierarchy process used in evaluating employee performance. Based on the results of the assessment of pairwise comparisons between factors, the weighting effect of each factor was obtained. Personal character factor has a weight of 0.279. The work competency factor has a weight of 0.499. The external factor has a weight of 0.222.

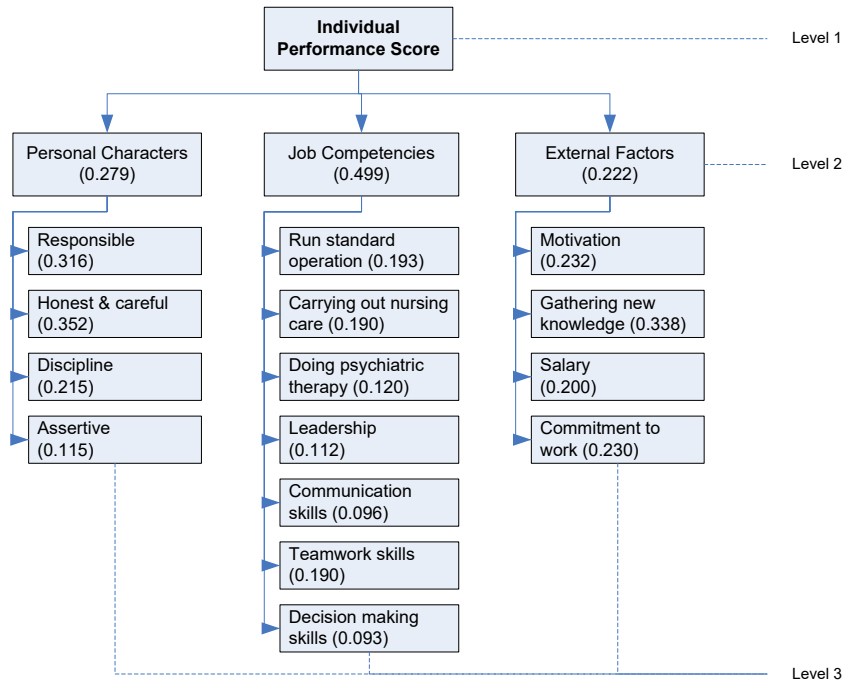


Figure 1. Problem's hierarchical structure.

The next step is to evaluate employee performance using the 360 degree feedback method, where the performance evaluation of an employee is carried out by superiors, by colleagues, and by himself. The assessments carried out by each party have different weights, based on a paired comparison assessment. Valuation by superiors has a weight of 0.344, assessment by colleagues has a weight of 0.415, and self-assessment weighs 0.241.

Table 5 shows the results of the subfactor assessment recapitulation conducted on 40 respondents as assessed employees. For each subfactor, look for the minimum value, maximum value, and average value. The maximum value obtained by employees from all subfactors is shown in column 6, while the minimum value obtained by employees from all subfactors is shown in column 7.

Table 5. Analysis of factors and subfactors

Factors	Sub Factors	Mean	Max	Min
Personal Characters	Responsible	4,171	4,875	2,819
	Honest & careful	4,123	4,833	3,181
	Discipline	4,050	4,792	3,181
	Assertive	4,125	4,667	3,417
Job Competencies	Run standard operation	4,039	4,556	2,778
	Carrying out nursing care	4,157	4,603	2,750
	Doing psychiatric therapy	3,800	4,528	2,625
	Communication skills	4,192	4,639	3,306
	Leadership	3,720	4,389	3,028
	Teamwork skills	4,182	4,833	3,097
	Decision making skills	3,765	4,333	3,069
External Factors	Motivation	4,090	4,593	3,097
	Gathering new knowledge	4,013	4,556	3,014
	Salary	4,256	4,611	3,500
	Commitment to work	4,254	4,611	2,861

From Table 5, it can be seen that the sub-factors that have the lowest three average values are therapy of mental nursing modalities, leadership, and ability to make decisions, with an average value of 3,800, 3,720, and 3,765, respectively. The three sub-factors are part of the work competency factor which has the highest or most important priority weight to achieve good performance values. It is recommended that paramedic members should pay more attention and try to make improvements by increasing understanding or conducting discussions with superiors or coworkers about the shortcomings or difficulties faced in order to improve and improve the performance of the nurse members themselves.

5. Conclusion

Employee performance appraisal is often crucial. The subjectivity of the assessor can influence the results of the assessment. Appraisers can provide different assessments of employee perceptions. Separate performance appraisals between superiors and co-workers with the value of the employees themselves will make a difference. This difference in value is called a negative gap. Employee valuation methods that involve many parties will result in a better level of assessment. Employee assessment methods that integrate 360 degree feedback and AHP can be used to reduce the negative gap value that occurs. In the case of nurses in mental hospitals, the results of the performance appraisal were sufficient to satisfy the employees.

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