

# Factors Affecting Organization Performance Assessment: A Comprehensive Review

Ali Janati<sup>1</sup>, Masoumeh Gholizadeh<sup>1</sup>, Alireza Hajizadeh<sup>2</sup>, Rona Bahreini<sup>2, \*</sup>

<sup>1</sup>Department of Health Services Management, Iranian Center of Excellence in Health Management, School of Management and Medical Informatics, Tabriz University of Medical Sciences, Tabriz, Iran

<sup>2</sup>Tabriz Health Services Management Research Center, Iranian Center of Excellence in Health Management, Student Research Committee, School of Management and Medical Informatics, Tabriz University of Medical Sciences, Tabriz, Iran

\*Correspondence: Rona Bahreini, Tabriz Health Services Management Research Center, Iranian Center of Excellence in Health Management, Student Research Committee, School of Management and Medical Informatics, Tabriz University of Medical Sciences, Tabriz, Iran. Tel: +989144633802, Email: bahreiny6886@gmail.com

Received 2020 September 16; Accepted 2020 October 20.

## Abstract

**Context:** Regular performance assessment is the basis of effective managerial decision-making, which is crucial to increasing the productivity of an organization. A distinct characteristic of an effective performance assessment is the implementation of various methods that assess the conformity with multiple indicators and criteria. The present comprehensive review aimed to extract the factors affecting the performance assessment of the organization.

**Methods:** We conducted a comprehensive search in databases, including PubMed, Embase, SID, and Magiran, in January 2020. Inclusion criteria were articles with the English language and available full-text ones that were about influential factors on organization performance assessment. Two independent reviewers checked the research process and screening of the articles. Content analysis was used for data synthesis.

**Results:** A total of 18 articles were included in this study. Factors influencing organizational performance assessment were categorized into three themes and 22 sub-themes. The themes included performance assessment indicators, performance assessment criteria, and background factors in performance assessment.

**Conclusions:** Indicators, criteria, and background factors provide a framework for assessing the organization's overall performance. An organization can manage its human resources effectively and efficiently by considering all effective factors. Identification and classification of influential factors can be of help for managers and decision-makers in creating a performance assessment system.

**Keywords:** Organizational Performance Assessment; Measurement; Organizations; Occupational Groups

## 1. Context

Today, human resources form a major part of the productive and operational inputs of organizations and play an important role in the quantity and quality of them. Since the 1990s, the growth and development of organizations' human resources skills have become a strategic issue for managers. A skilled and efficient workforce is the key factor in the progress of organizations, and through the proper performance of human resources, organizations achieve their great goals (1). Because of the work nature of health care organizations, the human resources of those organizations are recognized as the cornerstones of those organizations so that competent human resources have a significant impact on the quality of service provided, cost management, and speed of service delivery (2).

Bourguignon (3) claims that performance is one of the suitcase words that everyone incorporates a concept that is appropriate for him. Performance is a multidimensional structure whose assessment depends on a variety of factors. Proper organizational leadership, technology

development, internal and global competition, quality of goods, and services provided to customers, etc. are among the factors that should be considered today in performance assessment (4).

However, in the context of governmental management, performance is one of the most popular concepts in theory and practice, but there is still some uncertainty and confusion about it (5). From an organizational perspective, performance management is divided into individual, organizational, and group levels. The performance assessment system was first formally introduced at the individual and organizational level in 1800 by Robert Owen (6). Performance assessment is one of the key functions of human resource management. Performance measurement is one of the best ways to obtain information for organizations to make decisions. Employee assessment is a tool that helps understand organizations and human resources into their performance. The final goal of this assessment is not only to reward and punish employees but also to increase the efficiency and effectiveness of the or-



ganization. Therefore, performance assessment in organizations is a process that organizations can be evaluated through it based on their goals and mission (7).

Lawler first stated in 1967 that assessment based on information obtained from one source does not provide all the information sufficient to evaluate an individual's performance. Performance problems will only be possible with the use of multiple information (8). Bruden and Swenson's research shows that effective performance assessment systems have characteristics such as internal and external assessment, focus on outputs, valuable outputs measurement, simplicity, and objectivity (9). According to experts' opinions, the purpose of the assessment, as well as the performance assessment indicators and performance assessment levels, are important points to consider in the assessment system.

The survey of different approaches to performance assessment indicates that the assessment system should be appropriate to the growth and development of organizations and be responsive to their various dimensions (10). The present study aimed to identify and extract factors affecting organizational performance assessment.

## 2. Methods

### 2.1. Search Strategy

A comprehensive search of the following databases was conducted in PubMed, Embase, SID, and Magiran in January 2020. In each database, the following descriptors were used: [measurement OR assessment\*] AND [organization\* OR teamwork OR employee\*] AND [performance]. To recognize additional relevant articles that were lost in the database search, we checked the references of the selected publications (reference by reference). Each database was searched without any limitations. The full search strategy was performed by title and abstract of databases. The Endnote software version X7 (Thomson Reuters©, New York, NY, USA) was used for reference management, facilitating reduplication, and screening steps.

### 2.2. Eligibility Criteria

All quantitative, qualitative, and mixed method-studies were considered for the review. We included papers if they fulfilled all of the following criteria: (1) published in the English language; (2) full text available for screening; (3) mentioned influential factors on organizational performance assessment. In the initial screening, articles were excluded if their titles and/or abstracts were unrelated to university performance assessment. All studies mentioning influential factors were included in this review. No restrictions were imposed regarding the date of publication. Other research articles that were not considered for this review included government or organizational reports, theses, commentaries, editorials, and letters.

### 2.3. Study Selection

Two reviewers (RB and AH) independently screened the records based on title and abstract. Disagreements and missing data were resolved by discussion. We collected the following data for each study: authors, journal, and year of publication, country, study design, study population, and key findings.

### 2.4. Data Analysis

A content analysis approach was used to analyze the data. Content analysis as a research method is a systematic coding and categorizing approach. The analysis processes include three main phases: preparation, organizing, and reporting (11). All data were transcribed, coded, and analyzed by both researchers. Then, they were classified into both items and subthemes based on comparisons between similarities and differences.

## 3. Results

A total of 18 articles were included in this study (12-29). At first, we extracted the factors, then categorized them based on comparisons between similarities and differences in three main themes and 22 subthemes (Box 1).

**Box 1.** Main Themes and Subthemes

Theme and Sub-Theme
Performance assessment indicators
Input indicators
Output indicators
Process indicators
Goal indicators
Value-oriented indicators
Task Indicators
Performance assessment criteria
Leadership
Strategic planning
Stakeholders and customers
Information management
Human resources
Process management
Organizational structure
Financial results
Teamwork
Organizational culture
Control
Functional outcomes
Core competencies
Background factors in performance assessment
Individual factors
Organizational factors
Cognitive- imaginary factors

### 3.1. Performance Assessment Indicators

Performance assessment indicators were one of the influential factors in the performance assessment. This theme includes six types of performance assessment indicators. Input indicators that are designed based on the resources of the organization used (such as improving the financial structure, hiring skilled employees, using technology, etc.). Output indicators refer to the sum of the results of the performance or the service (Such as customer satisfaction, increasing employee motivation, and so on). Process indicators are based on work steps (such as customer responsiveness, interaction with other organizations, etc.) (12-15). Goal indicators are related to mission, target, and objectives (The achievement of the objectives). The values of society and organizational culture reflect value-oriented indicators (for example, respect to a customer). The last indicator is the task indicator, which refers to the type of tasks assigned (16-18).

### 3.2. Performance Assessment Criteria

According to the findings of the study, different criteria are effective in the assessment of the performance of any organization. In most performance assessment models, leadership is introduced as criteria of performance assessment. This criterion is found in five well-known models, including Malcolm Baldrige and ISO (19). Leadership means the senior management of the organization should determine the orientation of the organization and express the values of the organization in a clear and transparent manner. Developing a strategic plan is another criterion that every organization must consider to improve its performance (20, 21). Beneficiaries and customers of the organization are almost like the criteria mentioned in all models (19-29). The reason for this is that organizations depend on customers to survive. Successful organizations are the ones that produce, collect, and process the most and least expensive information. Therefore, the role of information management, especially in the performance assessment of organizations, is undeniable (19, 26). Employees of the organization and human resources, in general, are among the main assets of the organization that it is impossible to achieve goals without them (19-29). The performance of any organization consists of different processes. The ultimate goal of process management is to integrate the organization's processes so that the organization achieves its goals (23, 24). The importance of organizational structure in increasing organizational efficiency and effectiveness is very important (24, 27, 28). Therefore, considering the organizational structure in assessing the performance of the organization is inevitable. Financial results are important variables that should be measured in assessing an organization's performance (26). These variables can indicate the performance of the organization. Teamwork is an integral part of any organization that plays an important role in its success (19-24). Therefore, the

performance of teamwork should also be considered in assessments. Organizational culture plays an important role in the quality of working life in an organization as well as the level of performance (19-23). For this reason, performance assessment should be done in the context of the organizational culture specific to that organization. Control is a criterion that is only mentioned in the Deming performance measurement model (19). Functional outcomes in the organization include productivity, reduction of defects, and elimination of failures, efficiency, effectiveness, and quality (21). These outcomes are essential to be aware of the organization's performance status. The last criterion for assessing the performance of an organization is core competencies such as flexibility, responsibility, integrity, and so on (22, 25).

### 3.3. Factors Affecting Performance Assessment

Employee professional competence, independence, and technical skills are among the individual factors influencing performance assessment. Organizational factors affecting evaluation include organizational accountability and responsibility, organizational size, organizational dynamics, etc. Formality and formalism, institutional coordination, organization of human resources, monitoring and controlling instruments are among Imaginary-cognitive factors (24, 29).

## 4. Discussion

This study has identified and extracted all elements related to the performance assessment and has created a comprehensive view. According to Neely's definition, an effective performance measurement system consists of three parts: individual measures, organizational measures, and a supporting infrastructure (30). These three sections are categorized into the results of our study as background factors.

Our findings show that three items are required to establish a performance assessment system. Pouya et al. (31) divided the factors affecting employee performance assessment into 8 main indicators: personality factors, performance management, teamwork, commitment, and ethical values towards the organization, communication skills, knowledge and information management, designing products and services based on needs and customer expectations and organizational citizenship. Our study findings also showed that teamwork, process management, organizational values, information management, and customer orientation are indicators of performance appraisal. Lavy S et al. (32) identified indicators for performance measurement and classified them into four major categories: financial, physical, functional, and survey-based. These indicators were categorized based on specific aspects of facility performance measurement in order to facilitate a holistic performance assessment. The findings of this study are consistent with some of our extracted indicators.

A study identified required factors that can be considered necessary in conceptualizing the features of an efficient and effective performance measurement system (PMS) that is appropriate in the modern organizational setting. The paper defines a measure, metric, and indicator that relates to the use of accounting and non-accounting data and suggests some of the non-accounting methods of measurement and performance measurement that can be used generally in various organizations (33). Therefore, before assessing the performance of any organization, it is necessary to identify and determine measurement indicators, both quantitatively and qualitatively.

Each organization requires to determine the vital performance indicators for assessing the amount of utility of its activities. This study identifies and prioritizes key performance indicators (KPIs) that an organization should focus on them to progress towards organizational objectives. Next, nineteen indicators were listed as final key indicators, including four indicators in financial perspective, seven indicators in processes perspective, five indicators in customer perspective, and three indicators in learning and growth perspective (34). According to the findings of the present study, financial results, process management, and customers are among the indicators of performance assessment.

The aim of Taheri et al. study (35) was to identify the main components of school performance evaluation in desirable conditions. The findings indicated that the following components could be considered for evaluating the performance of 12 components. Management and leadership, organizational climate, and organizational culture were among the factors (35). The findings of our study also mentioned these two factors. Tarasova et al. (36) have developed an adaptable assessment structure that can be easily adjusted to the specific nature of any enterprise. In this study, employee performance is viewed as a complex structure, which is comprised of four criteria groups (qualification, staff morale, productivity, discipline). Therefore, according to the results of the present study, functional results are one of the main criteria for performance assessment.

#### 4.1. Limitations

Our study had some limitations. First, we did not include foreign language articles. Second, we had no access to the full text of some articles. On the other hand, we used broad inclusion and exclusion criteria to gather as many studies as possible. Thus, there may have been potential unidentified items in the review.

### 5. Conclusions

This review provides a comprehensive insight into factors affecting organization performance assessment. The findings of the study showed that it is necessary to develop a specific framework to assess the comprehensive performance of each organization. This framework should

have three components: indicators, criteria, and background factors. These can help managers in performance assessment. Depending on the type and purpose of the organization, these three components can include different subsets. However, the main structure will be the same in performance assessment. This means that in order to correct and comprehend the performance assessment of any organization, the relevant indicators, the correct criteria, and the background factors involved must be identified and determined first. Such a performance assessment can help organizations improve performance and achieve their goals. Also, it leads to a comprehensive and common vision among the stakeholders of each organization. We conclude that by using these components, a comprehensive system can be established to assess the performance of the organization to be periodically informed of its function and achievement of its goals.

#### Conflict of Interests:

The authors declared that they have no competing interests.

### References

1. Bordbar G. The effective factors on labor productivity with multi-criteria decision making techniques. A case study: personnel of Shahid Sadoghi Hospital in Yazd. *J Health Admin.* 2013;**16**(51):70-83.
2. Yarmohamadian MH, Bahrami S, Karimian J. A Survey of Four Performance Management Models in the Health and Treatment Sector. *QJ Manag Develop Process.* 2005;**19**(1):19-26.
3. Neely A. *Business Performance Measurement.* New York: Cambridge University Press; 2007.
4. Avdeyuk O, Asanova N, Tarasova I. Employee Performance Assessment in a Large Enterprise. Proceedings of the International Scientific Conference "Far East Con" (ISCFEC 2020). 2020.
5. Poister TH. *Measuring performance in public and nonprofit organizations.* John Wiley & Sons; 2008.
6. Kim PS, Hong KP. Major Constraints and Possible Solutions for Performance Management in Korea. *Public Manag Rev.* 2013;**15**(8):1137-53. doi:10.1080/14719037.2013.818844.
7. Stanciu AA, Stoica D-A, Surgun MB, Traistaru NI, Vranceanu A. Measuring the Organizational Performance: A Theoretical Overview. *Acad J Econo Stud.* 2019;**5**(1):160-3.
8. Javaherizadeh N, Mehrabi J, Bazvand F. Comparison of the Results of Performance Appraisal Using Traditional Method and 360-Degree Feedback: The Relationship with Employee Satisfaction in Lorestan University of Medical Sciences. *J Develop Evol Manag.* 2011;**1390**(6):57-68.
9. Hosseinpour R, Arasteh H. Evaluation and Selection of a Base Model for Performance Evaluation for Defensive Research Centers. *QJ Res Plan High Educ.* 2010;**16**(3):65-83.
10. Fache P, Sicotte C, Minvielle E. The Search is on for Coherent Performance Measurement in Healthcare Organizations. Has Quebec Reached a Crossroads? *Healthc Policy.* 2016;**11**(4):60-9. [PubMed:27232237]. [PMC4872553:PMC4872553].
11. Tajabadi A, Ahmadi F, Sadooghi Asl A, Vaismoradi M. Unsafe nursing documentation: A qualitative content analysis. *Nurs Ethics.* 2020;**27**(5):1213-24. doi:10.1177/0969733019871682. [PubMed:31476968].
12. Rojuee M, Ramezani M, Hesari MR, Bor Bor Jafari M. Designing performance evaluation indicators by using ahp and bsc approaches (case of study: social security organization of Mashhad). *Soc Welfare Q.* 2017;**17**(64):133-60.
13. Yarmohammadian MH, Shahtalebi S, Fooladvand M, Shahtalebi B. Providing a Model for evaluating universities performance (A survey study of Islamic Azad University Isfahan (Khorasgan) Branch. *JN Approaches Educ Admin.* 2015;**6**(22):19-38.

14. Shoghli A, Roshenas K. Application of Balance Score Card (BSC) and Analytic Hierarchical Process (AHP) in assessment of academic departments: A case study in Zanjan School of Pharmacy. *J Med Educ Develop*. 2016;**9**(22):53-63.
15. Shafiei M, Amini M, Abooyee AM. A model for evaluation and ranking iranian universities by composite index and based on budget operation. *J Macro Strategic Policies*. 2016;**4**(14).
16. Lahoz Mde A, Camarotto JA. Performance indicators of work activity. *Work*. 2012;**41** Suppl 1:524-31. doi:10.3233/WOR-2012-0207-524. [PubMed:22316777].
17. Ondategui-Parra S, Bhagwat JG, Gill IE, Nathanson E, Seltzer S, Ros PR. Essential practice performance measurement. *J Am Coll Radiol*. 2004;**1**(8):559-66. doi:10.1016/j.jacr.2004.03.020. [PubMed:17411654].
18. Jamshidian M, Ranjbarian B, Alavi A, Musharraf Javadi A. An Introduction to the Performance Measurement Mechanism of Government Service Organizations in Iran. *J Knowl Develop*. 2001(14):47-64.
19. Musa Khani M, Haghkhah D, Hassanzadeh D. Provide a conceptual framework for evaluating university performance. *Q J Leadership Educ Manag*. 2009 **3**(3):145-61.
20. [No author listed]. Designing an agile organization performance measurement model: an interpretive structural modeling approach(ISM). *Manag Tomorrow*. 2013;**12**(36):79.
21. Jafari A, Ehsani M, Khabiri M, Moumeni M. The design of a performance assessment system in physical education colleges and sport sciences in Iran. *J Sport Manag*. 2009;**1**(2).
22. Ayobi M. A Model for Evaluation and Ranking Iran Universities by composite Index. *Sci J Manag Syst*. 2016.
23. Seyyed Naghavi MA, Sehat S, Dehghanan H, Farhadi A. Evaluating the Performance of Military Universities Based on the Excellence Framework and Organizational Development (A Case study). *Educ Measur Eval Stud*. 2016;**6**(15):39-63.
24. Naderzade Gavareshgi M, Maghool A, Cherabin M, Zendedel A. Identification of Organizational Performance Evaluation Factors in Departments of Mashhad University of Medical Sciences. *J Neyshabur Univ Med Sci*. 2018;**6**(3):52-63.
25. Iranzadeh S, Norouzi D, Babaie HS. A survey on employees performance appraisal systems by using the fuzzy tree model. *Sci J Manag Syst*. 2011;**6**(17):115-32.
26. Fazli S, Adel A. Designing a Mathematical Model for Evaluating the Performance of a Manager With a Data Envelopment Analysis. *Manag Res Iran*. 2002;**6**(3).
27. Mehroolhassani M, Emami M, Haghdoost A, Dehnavieh R, Amanpour S, Sabbah F, et al. Performance Assessment of Medical Universities using Balanced Scorecard and Analytical Hierarchy Process; 2013. *Iran J Epidemiol*. 2017;**12**:55-64.
28. Bland CJ, Wersal L, VanLoy W, Jacott W. Evaluating faculty performance: a systematically designed and assessed approach. *Acad Med*. 2002;**77**(1):15-30. doi:10.1097/00001888-200201000-00006. [PubMed:11788318].
29. Etherington N, Larrigan S, Liu H, Wu M, Sullivan KJ, Jung J, et al. Measuring the teamwork performance of operating room teams: a systematic review of assessment tools and their measurement properties. *J Interprof Care*. 2019:1-9. doi:10.1080/13561820.2019.1702931. [PubMed:31865827].
30. Abbaspour A, Rahimian H, Mehregan M, Ahmadnia H. A Qualitative Study of the Barriers Underlying Organizational Performance Measurement in Educational Systems Focusing on the Individual and Organizational Factors and their Reciprocal Negative Synergy. *J Med Educ Develo*. 2017;**10**(27):141-54. doi:10.29252/edcj.10.27.141.
31. Kennerley M, Neely A. Performance measurement frameworks: A review. *Business Performance Measurement*; 2002. p.145-55.
32. Pooya A, Norouzi M. Typology of human resources performance evaluation indices (Case study: Fars Province Gas Company). *Hum Resour Manag Oil Ind*. 2017;**8**(31):177-205.
33. Lavy S, Garcia JA, Dixit MK. Establishment of KPIs for facility performance measurement: review of literature. *Facilities*. 2010.
34. Choong KK. Understanding the features of performance measurement system: a literature review. *Measur Bus Excellence*. 2013.
35. Haddadi F, Yaghoobi T. Key indicators for organizational performance measurement. *Manag Sci Let*. 2014;**4**(9):2021-30. doi:10.5267/j.msl.2014.8.019.
36. Taheri A, Jafari P. Identify main components for performance assessment of schools in favorable situation. *Iran J Educ Sociol*. 2019;**2**(4):1-9.