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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

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Abstract

Background & Objective: The present study aimed to identify the barriers in the current system of organizational performance measurement and determine the educational challenges within the framework of Stufflebeam and Coryn (2014) meta-evaluation model in 14 educational offices in Zanjan province, Iran.

Materials and Methods: This exploratory study was performed using a qualitative approach and conventional content analysis. Interviews were based on the Stufflebeam and Coryn (2014) meta-evaluation model. In total, 154 codes were verified by 10 participators.

Results: Among 154 acquired codes, the most important themes were deduced through the assessment of organizational performance measurement in the educational system. These themes included the 'mutual incompetency between the individual and organization', 'individual factors affecting the assessment', 'organizational factors affecting the assessment', 'imaginary-cognitive factors', and 'results and consequences of establishing a system for organizational performance evaluation'. In addition, four themes emerged regarding the problems associated with the measurement of organizational performance, including the 'individual and structural problems of the organization', 'problems associated with the organizational culture and climate', ' conceptual (perceptional) challenges', and 'functional problems'. Some research suggestions have also been provided.

Conclusion: According to the results, the efficiency of the organizational performance measurement system reduces due to barriers such as the low professional competency of the staff, poor technical skills in quantitative analysis, and inattention to the methodology of organizational performance evaluation within the context of organizing and coordinating the weaknesses of an organization without using the necessary tools to addressthelackofpriorityin performanceevaluation and poor organizational accountability.

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Introduction

Performance has been a major concept in the development of public administration in the past two decades, as well as a central objective in the relating research. Due to the increasing demand of beneficiaries to be aware of the information and outcomes associated with the performance of governmental agencies, performance management tools are considered to be a key foundation of the current era (1).

Performance could be studied on the individual, team, and organizational levels. Individual performance specifies the contribution of an individual for achieving organizational goals. Team performance refers to the achievement rate of the objectives agreed by the team, and organizational performance is defined as the sum of the organizational results (2).

To establish a performance measurement system, a set of individual and organizational factors must be ensured. Furthermore, the correlative nature of these phenomena is of paramount importance. In the organizational arena, individual behaviors and the organizational consequences, as well as the organizational requirements and their impact on the individuals' behaviors, cannot be comprehended independently. Therefore, the term 'correlation' refers to the notion that these two phenomena must be contemplated simultaneously in this context.

According to Markus (3), the main prerequisites of a performance measurement system are clear goals, an organizational culture consistent with the performance evaluation system, proper understanding of individuals regarding their contribution and its importance in achieving organizational goals, justice and equality, clarified significance of the evaluation system as a means to achieve organizational goals, commitment of senior managers and staff on all levels, and system integrity.

Watkins and Leigh (4) believe that in the establishment and implementation of performance measurement systems, individual and organizational factors must be primarily considered as they are challenging and could lead to the failure in achieving the system's goals. Moreover, the researchers mainly attribute the major issues of performance measurement systems to factors such as the poor system design, inadequate education of employees, and delivery of inaccurate training in the organization.

According to a study by Machingambi et al. (5), some of the most important barriers against the proper establishment of

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performance measurement systems are the lack of staff training in the field of performance measurement, misuse of the systems by the managers, and lack of motivating rewards and resources. Quoting Seotlela and Miruka (7), Pace (6) considers the other challenges in this regard to be associated with the ineffective involvement of executive managers, which discourages the employees to use the systems properly.

Markus (3) divides the problems associated with organizational performance measurement systems into two main categories of design and lack of credibility. He believes that in many of these systems, an annual assessment of the organizational goals is anticipated, while in most cases, the correlation of individual goals and organizational values, as well as the association of the organizational goals and strategies, is not established.

One of the most important pathology frameworks for performance measurement systems has been proposed by Johnson (8). With a systemic view, Johnson discusses the barriers relating to performance measurement systems based on the three components of establishment, use, and outcomes. Organizational culture plays a pivotal role in the development, establishment, and maintenance of performance measurement systems and could apply employees in the entire performance cycle (3). In this regard, traditional organizational culture is considered to be anobstacle against effective performance management.

Some of influential barriers in the establishment of performance measurement systems include theoretical and methodological weaknesses, lack of resources, incapability of the organizational structure, lack of commitment in senior managers, impatience, and resistance of the staff. Regarding the component of use, these challenges include the lack of reliable statistics and information, measurement errors, organizational decision-making without considering the performance measurement systems, obsolescence of measurement indexes, information overload, lack of a sense of ownership toward the performance, loyalty to professional norms as opposed to the performance management system, and lack of expertise in applying the obtained data. Sunlin (9) has emphasized on the importance of accuracy in data collection and use and believes that meticulous assessment largely depends on the quality of the collected data.

The mentioned barriers may lead to adverse consequences, such as sub-optimization,

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tunnel vision, myopia in the measurements (e.g., tendency toward manual measurement), measurement fixation, ratchet effect (i.e., staff resistance to performance improvement due to the fear of setting new standards for the same work with higher values), ossification and currency of the system, and invalidity of the performance measures.

Efforts of the Iranian Ministry of Education to establish and use organizational performance measurement systems demand compliance with the requirements of the dominant paradigm in the field of management. According to Article 3 of the administrative instructions for the establishment of performance management systems, Paragraph h in Article 3 of the implementation regulations, and articles 81 and 82 of the Civil Services Management, executive organizations are required to carry out the performance evaluation system as a second step to the establishment of performance management systems based on the general and specific criteria on three levels for the organization, managers, and employees. Moreover, in accordance with Note 1 in Article 1 of the mentioned instructions, the main responsibility of the development and delivery of the annual and strategic programs is assigned to the highest executive authority of the organization, and the operational objectives must be delivered to the affiliated units at the end of December each year in order to be run in the following year.

According to Article 6 of this directive, it is an obligation for executive agencies to deploy the performance data analysis system, so that the collected data could be converted into practical knowledge for performance improvement on the three levels of organization, management, and employees. This enables organizations to identify the barriers in this regard and attempt to improve their performance using scientific instruments and statistical methods.

The present study aimed to assess the current system of organizational performance measurement in the educational system based on the Stufflebeam and Coryn (10) meta-evaluation model.

Materials and Methods

The main objective of the present study was to focus on conducting organizational performance measurement and identifying the indices and designing specific indices for the related education, which has been ratified in the form of five subjects, including teaching, mental training, physical education, education spaces, and human resources.

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The research involves the approaches used for organizational performance measurement, determining the related indexes and standards, matching organizational performance with the defined standards, and qualitative analysis of the results based on the viewpoints of the academic experts in the field of management and authorities of the Performance Evaluation Offices in the Department of Education and Planning and Employment Department affiliated to Zanjan General Governor in Zanjan province, Iran. The collected data were investigated until reaching theoretical saturation.

Research questions were addressed using an exploratory qualitative approach and conventional content analysis. To achieve the research objectives, 10 participants were selected for the interviews, and their comments yielded 154 codes (passwords). Among 10 interviewees, two were female (20%) and eight cases were male. In terms of education status, one participant (10%) had a bachelor's degree, seven cases (70%) had a master's degree, and two participants (20%) had PhD. With respect to organizational position, three participants (30%) were experts, two cases (20%) were experts in charge, one participant (10%) was a manager, two cases (20%) were general managers, and two individuals (20%) were faculty members at Zanjan University.

To build a basis for the interview questions and address the research questions, the Stufflebeam and Coryn meta-evaluation model was used. Phrases were intended as the analysis unit to label the studied concepts. In the content analysis of the interviews on the performance evaluation process in the Department of Education, the extracted codes were organized into several categories. Determining categories was the main feature of the qualitative content analysis in the present study, and the code sets shared one common feature.

The main themes emerged from the categories with internal consistency. According to Patton, the categories have an internal harmony and external heterogeneity, while Krippendorff emphasizes that the categories should be comprehensive and exclusive (11). In other words, no relevant data should be kept out of the defined categories, and failure to meet this requirement is considered to be a disadvantage in categorization.

In the present study, the relevant literature was obtained through a deep, intensive survey aiming to find the common materials of the performance measurement systems implemented in public and private

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organizations. Literature review was carried out via searching in various scientific journals and PhD theses published in Iran and other countries. The term ‘alignment’ refers to the use of resources, methods, analysis, and multiple theories (12). In order to increase the reliability of the research, alignment was derived from the collected interview data and retrieved literature.

For confirmation, the findings were compared to the thematic literature and previous studies in this regard. Afterwards, the participants were asked to review the new concepts and confirm their accordance with the interview contents. The final data were confirmed by all the participants.

Results

The meta-evaluation of the organizational performance measurement process was defined based on the four components of utility, propriety, accuracy, and feasibility. In terms of utility, the category of ’limited organizational efficiency’ showed the highest frequency, while the lowest frequency belonged to the categories of ‘organizational accountability problems’, ‘lack of independence in performance’, ‘lack of organizational motivation’, ‘non-alignment, and ‘lack of organizational knowledge’.

With regard to the feasibility of the organizational performance evaluation process at the Department of Education, 31 codes were extracted and converted into 14 categories. Among these categories, ‘lack of organizational knowledge’, ‘lack of organizational motivation’, and ‘excessive formality and formalism’ showed the highest frequency. On the other hand, 10 categories jointly had the lowest frequency, all of which covered the possibility of the educational performance evaluation process.

In the content analysis of interviews on the propriety of the organizational performance evaluation process in education, 34 codes were extracted. After the classification of these codes, 10 categories were eventually selected. Among these categories, the highest frequency was observed in the 'lack of organizational knowledge’, ‘lack of sufficient formality’, and ‘lack of organizational motivation’, which covered the propriety of the organizational performance evaluation process in education.

To assess the accuracy of the educational performance evaluation process, 18 codes were extracted, based on which five categories were determined. In this regard, the highest frequency belonged to ‘poor technical skills in quantitative analysis’, while the

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category of 'excessive formality and formalism' showed the lowest frequency, covering the accuracy of the performance evaluation process in education.

After categorization, themes emerged as the last concept of the qualitative content analysis. Content creation is an approach used to relate the basic meanings of various categories. According to the information in Table 1, the most important themes deduced from the organizational performance measurement system in education were 'mutual incompetency between the individual and organization', 'imaginary-cognitive factors', and 'results and consequences of establishing the performance evaluation system'. These components have been illustrated in a cause-effect format in Figure 1 .

Table 1: Themes formed from the categories of meta-evaluation of performance evaluation system

No.	themes	categories
1	mutual incompetence between the individual and the organization	weakness of organizational knowledge and professional competence of staff, methodological weaknesses in assessment and weakness of technical skills in quantitative analysis, lack of organizational motivation and low professional dependence of the employees, lack of individual and organizational creativity and innovation
2	individual factors affecting assessment	lack of professional qualifications of staff, lack of independence in performance, lack of technical skills in quantitative analysis, staff low professional affiliations
3	organizational factors affecting assessment	lack of accountability and organizational responsibility, lack of systems integration and alignment
4	imaginary-cognitive factors	excessive formality and formalism, lack of institutional coordination, lack of adequate formality , weak organization of human resources, weak monitoring and controlling instruments, rely and focus on quantitative targets
5	results and consequences of performance evaluation system establishment	limited effectiveness, relying solely on quantitative targets

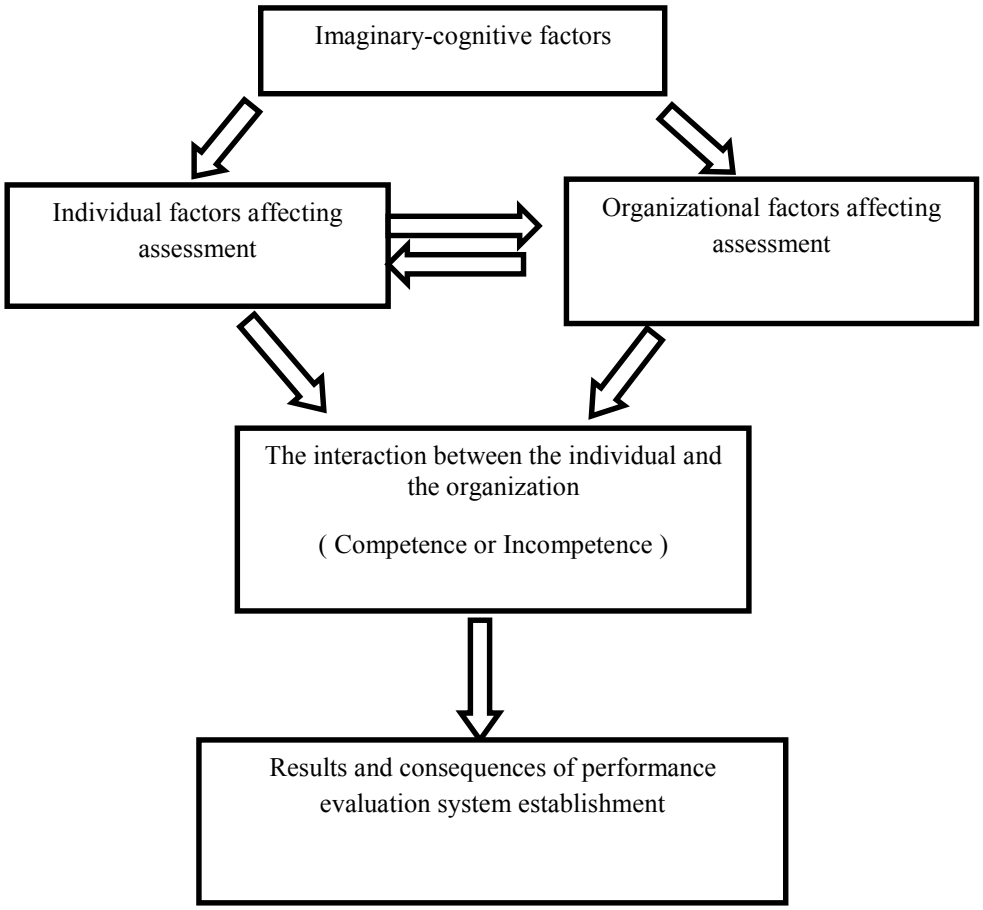


Figure 1: Themes formed from the categories of meta-evaluation of performance evaluation system

The second research question focused on the problems associated with the performance measurement in the Ministry of Education. As an independent issue, organizational performance measurement has been examined in three areas, including the 'problems in the performance conformity with quantitative targets', 'performance measurement problems', and 'setting the standard for performance problems'. In total, we extracted 8, 12, and 8 codes, respectively, which were converted into 5, 10, 3 categories, respectively. For a clear perspective of this issue, these categories (n=18) should be combined, so that in addition to summarizing the categories, the three mentioned areas could yield an abstract concept with higher coverage. The extracted themes are presented in Table 2.

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Table 2: Themes formed from the categories of meta-evaluation of performance evaluation system

No.	themes	categories
1	Individual and structural problems of organization	Coordination problems, low job dependence of staff, Problems of organizing human resources
2	Problems related to culture and organizational climate	assessment mania , Problems of accountability and organizational responsibility
3	Conceptual problems (perceptional)	Weakness of organizational knowledge, lack of alignment of programs with strategic objectives, Weakness of strategic awareness, excessive reliance on intuition
4	Functional (performance) problems	weakness of quantitative analysis skills, weakness of extracting reliable standards

According to the information in Table 2, the categories of 'coordination problems', 'low job dependence of the staff', and 'problems in human resource organization' were classified into the theme of 'individual and structural problems in the organization'. Similarly, the categories of 'assessment mania' and 'problems in organizational accountability' were classified into the theme of 'problems relating to organizational culture and climate'. In addition, the categories of 'poor organizational knowledge', 'lack of alignment in the programs with strategic objectives', 'low strategic awareness', and 'excessive reliance on intuition' were classified into the theme of 'conceptual (perceptional) challenges'. Finally, the categories of 'poor quantitative analysis skills' and 'low reliability of extracting standards' were classified into the theme of 'functional (performance) problems'. The extracted themes are depicted in Figure 2.



Figure 2: Themes formed from the categories of meta-evaluation of performance evaluation system

After the formation of the themes, we obtained the two phenomena of 'Stufflebeam organizational performance measurement system' and 'performance measurement problems'. Due to the commonality and overlap of these concepts, they had to be presented in the form of a causative process model. As mentioned earlier, meta-evaluation oversees the evaluation mode of the evaluation. Evidently, determining the strengths and weaknesses are considered in this regard as the objectives of meta-evaluation. On the other hand, in the case of performance measurement problems, the strengths and weaknesses in the dominant procedures must be taken into account. Therefore, paying attention to these two phenomena as a model could be helpful. The proposed model could be expressed in the form of a three-dimensional paradigm model of the grounded theory (13), consisting of causative conditions, phenomena, context, intervening conditions, strategies, and results (Figure 4).

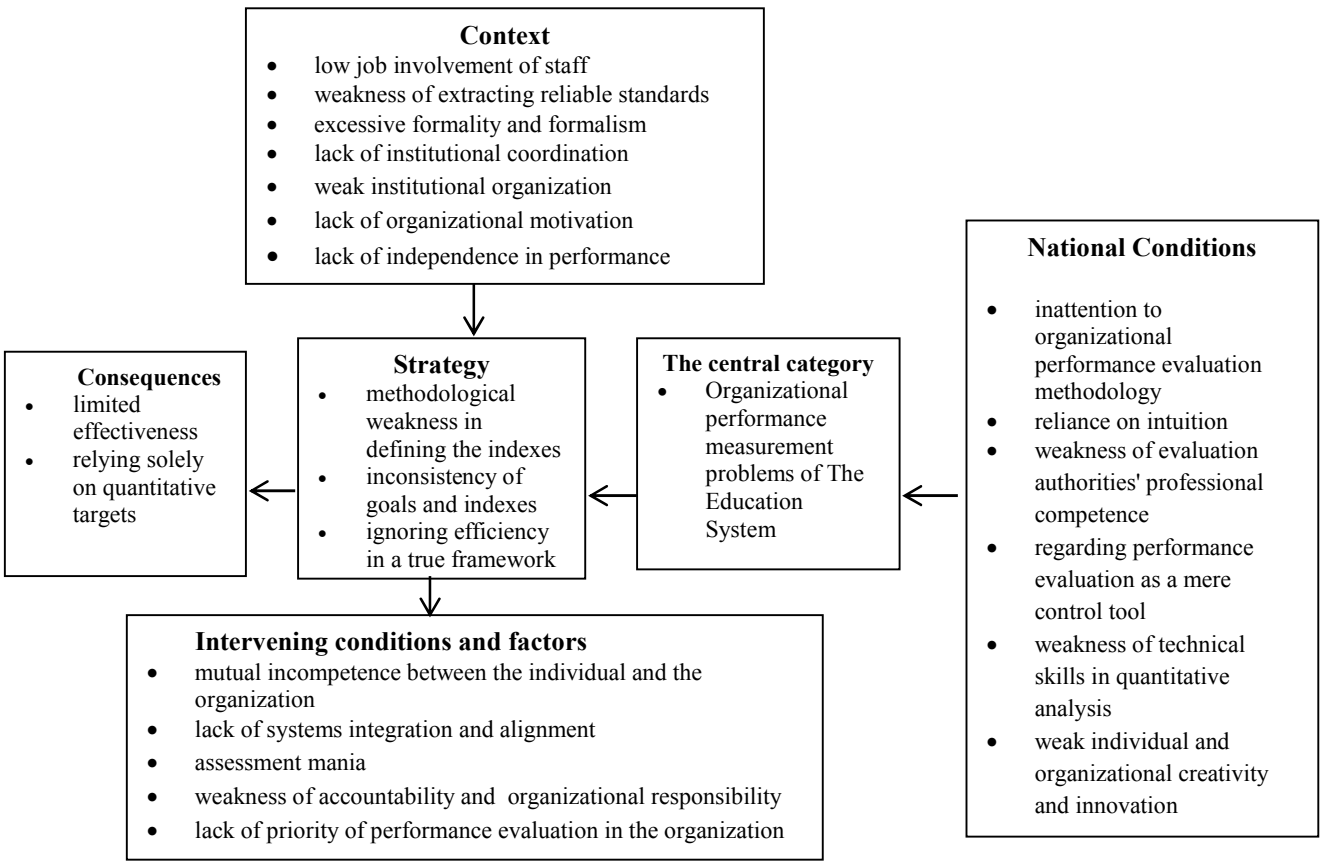


Figure 4: Meta-evaluation of organizational performance measurement system of Education

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Causative conditions are the events that create the positions, discussions, and issues relating to the phenomenon and partly describe the reasons and approaches affecting the individuals and groups to comply with the phenomenon. In fact, causative conditions apply to the events that give rise to and affect the phenomenon, thereby creating and developing the phenomenon.

According to the results of the current research, the main causes of the problems in performance measurement were ‘inattention to the methodology of organizational performance evaluation’, ‘relying on intuition’, ‘low professional competency of evaluation authorities', ‘considering the performance evaluation as a mere control tool’, ‘poor quantitative analysis skills’, and ‘lack of individual and organizational creativity and innovation’. Furthermore, in the paradigmatic model, recognition of a central category to which other concepts are related (located in the center of the model) is of paramount importance. Therefore, a category is considered as a core or central element only when it is associated with all the other major categories.

Discussion

Based on the systems theory, in the absence of a mechanism for coping with adverse effects of positive entropy, organizations are faced with the collapse of the entire system. A performance management subsystem is not exception in this regard. Among the symptoms of positive entropy in an organization are the low professional competency of the staff, poor organizational knowledge, lack of integration and alignment systems, inefficient controlling tools, and methodological weaknesses in assessment, which involve the individuals with the capacity of skills, knowledge, emotion, perception, and attitude, as well as the structural and content dimensions of an organization.

The theory of resource dependence and the institutional theory are summarized in interaction with organizational beneficiaries and environment. The innate message of these theories is that organizations need to comply with organizational and environmental standards, requirements, and expectations in order to gain legitimacy (14, 15). According to the current research, categories such as the ‘problems in organizational accountability’ and ‘lack of confidence in the organization’ are the main issues that affect the organizational compliance with environment and undermine its legitimacy, thereby leading to the long-term erosion of resources and facilities.

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To interpret the individuals' behaviors in an organization, their sociological and psychological background must be taken into account, while the requirements and effects of the structural and content aspects of the organization should be realized as well. Attitudes, characteristics, perceptions, and locus of control are personal variables that determine the individuals' behaviors in an organization. The practical necessity of this correlation denotes that the close relationship of individuals with their occupation makes them more qualified (16). Therefore, better personal compatibility with an occupation increases job satisfaction, as well as the likelihood of involvement and occupational dependency.

Cognitive dissonance (non-compliance of behaviors with attitudes), poor professional affiliations, and reliance on intuition are rooted in the behavior of individuals. On the other hand, the structural and content aspects of an organization demand certain behaviors and encourage specific expectations. As the structural and cultural dimensions of an organization, factors such as formality, centralization, and complexity are of great importance and serve as its content dimension. According to the results of the present study, 'lack of independence in performance', 'lack of institutional motivation', 'problems in organizing human resources', 'organizational coordination problems', and 'lack of strategic awareness' are the categories originating from the structural dimensions of an organization. On the same note, the categories of 'lack of individual and organizational creativity and innovation' and 'considering performance evaluation as a mere control tool' are rooted on the culture of an organization and its basic assumptions.

Organizational culture can act as a 'double-edged sword'; in the case of agreement on efficiency and effectiveness, this could be a helpful concept. However, if there is incompatibility in the common values and the values leading to the improvement of organizational efficiency, culture becomes an obstacle against achieving organizational goals and negative interactions increasingly reduce the efficiency of individuals and organizations.

According to the results, the efficiency of the organizational performance measurement system reduces due to barriers such as the low professional competency of the staff, poor technical skills in quantitative analysis, and inattention to the methodology of organizational performance evaluation within

the context of organizing and coordinating the weaknesses of an organization without using the necessary tools to address the lack of priority in performance evaluation and poor organizational accountability.

Conclusion

After several reviews of the extracted categories in the present study, it seems that focusing on the challenges in organizational performance measurement in education is the central point of development process and critical thinking. Context refers to a series of certain circumstances that influence actions and interactions. According to the results, the contexts giving rise to the problems in organizational performance measurement include 'low job dependence of staff', 'poor extraction of reliable standards', 'poor institutional coordination', 'poor institutional organization', 'lack of organizational motivation', and 'insufficient independence in performance'.

Strategies indicate the behaviors, activities, and purposeful interactions in response to the categories under the influence of intervening conditions. Based on the categories derived from the analysis in the current research, 'methodological weakness in defining the indexes', 'inconsistency of the goals and indexes', and 'disregarding efficiency in a true framework' are the organizational procedures that determine the format of the organizational performance measurement system.

Some of the categories in the present study denoted the consequences that arise from the strategic decisions in an organization, which could be positive or negative. In this regard, the categories that may be considered as the outputs of the current organizational performance measurement system are 'limited efficiency' and 'sole reliance on quantitative targets'.

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