

Presentation a Conceptual Framework to Schools Evaluation (Combination of Standard Organizational Excellence Models and DEA)

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Abstract: The present study has been carried out in order to presentation a conceptual framework to evaluation of Iranian schools, this conceptual framework is base on modulation of factors and constituents of standard organizational excellence models (consist of 9 models), by Delphi method and factor analysis, evaluation factors selected and with use of DEA method, carried out the evaluation. The input factors included: policy and strategy, leadership and management, customer and market, human capital, process and organizing, partners and resources and output factors included: results of human resources, results of the society, financial and economic results and performance results. Thus, through the approach of constructing reference and target value, the ameliorable points of weak will be identified and schools will be graded.

Key words: Conceptual framework • Evaluation • Organizational excellence models • Data envelopment analysis • Schools

INTRODUCTION

School can be used as a strategic site for addressing social problems and helping students understand what it means to exercise rights and responsibilities as critical citizens actively engaged in forms of social learning that expand human capacities for compassion, empathy and solidarity, Schools should foster public values [1].

The Schools plays an important role in our societies, it is the role of schools to:

- Take all reasonable steps to keep students safe at school.
- Support students in arrangements to have their health care needs met so that they can participate in their learning program.
- Administer prescribed medication in response to parents' written requests following consultation with staff and parents and the supply of necessary medication and consumables by parents.
- Administer specific health care procedures in response to parents' written requests following consultation with staff and parents and the supply of necessary medication and consumables by parents.

- Share medical information with others who need to know emphasizing the need to use it sensitively and confidentially.
- Develop an individual health care plan where required or where principal determines it will be helpful.
- Provide emergency care.
- Provide support for staff to access relevant allowances and training.

Schools, educates students for work or for academic. Yet, this is not its only role. It also represents the cornerstone for the democratization, growth and wellbeing of our societies [2].

Considering the universalizing era and the change in the schools mission and a move towards high-quality and organizational excellence, the existing factors of evaluation which are mainly goal-oriented and introspective, are no more indicative of the evaluation of the schools; therefore, by using the modern factors of universal evaluation which are derived from organizational excellence models, it is possible to walk towards the development of a society and the effectiveness of schools, consistent with national and international evolutions [3].

Since January 1999 the Educational Institutions have been obliged to assess their own operations and have been seeking good practices and forms of self-assessment. Some schools have created their own models of evaluation and some schools have chosen a standardized model. Standardized models have become more popular because of the possibility of comparing the practices between different schools [4].

The organizational excellence models are based on features of effectiveness, good quality in leadership and in custom services, strong intention of operations, functions based on facts, intense staff development and participation. These models also emphasize life long learning, innovating, enhancing operations, developing companionships and social responsibility.

Schools that have implemented standardized models in self-evaluation and have also participated in external evaluations experience that these measurements give the following benefits:

- The school community gets into the heart of the process in a neutral way.
- Much more consideration is given to pupils.
- False criticism can be disproved and constructive criticism can be taken in use.
- Relevant and appropriate practices can be found.
- The school community learns how to use a holistic perspective with development.
- The collaboration between colleagues becomes more concrete.
- A mutual strategy can be found and everyone can easily commit to it.
- A clear policy increases individual freedom and makes the use of innovative solutions possible.
- Responsibility for ones own work and responsibility in leadership becomes much clearer.
- The school can create its own system of on-going self-evaluation [5].

Lately, As a result of the appearance, suitable selection, certain distinguishing, Combination of indicators of these models in order to implementation of schools evaluation will be effectiveness to keep its position and improvement. By implementing Evaluation-based development strengthens a schools' profile against other schools [6].

Organizational Excellence Models: In general, organization excellence models have been developed by national bodies as a basis for award programs. For most

of these bodies, the awards themselves are secondary in importance to the widespread adoption of the concepts of organizational excellence, which ultimately leads to improved national economic performance. By far the majority of organizations that use these models do so for self-assessment, through which they may identify improvement opportunities, areas of strength and ideas for future organizational development. Users of the organizational Excellence Models, for instance, do so for the following purposes: self-assessment, strategy formulation, visioning, project management, supplier management and mergers.

Organizational excellence refers to "outstanding practices in managing the organization and achieving results, all based on a set of eight fundamental concepts." These concepts are: orientation on balanced results, focus on customer value. Leadership and constancy of purpose, management by processes and facts, people development and involvement including continuous learning, innovation and improvement, partnership development and public responsibility.

Schools are now asked to develop themselves into excellent schools; the way that schools are being appraised has been changed. The school today is asked to do self-appraisal using the School Excellence Models, which is adapted from a organization excellence models. School will grade their levels of attainment in each factor and criterions of recent models.

Data Envelopment Analysis (DEA): Zhu [7], mention that Data Envelopment Analysis (DEA) is relatively a new "data oriented" approach for evaluating the performance of a set of similar entities called Decision Making Units (DMUs), which converts multiple inputs into multiple outputs, Some of the advantages of DEA are:

- No need to explicitly specify a mathematical form for the production function.
- Proven to be useful in uncovering relationships that remain hidden for other methodologies.
- Capable of handling multiple inputs and outputs.
- Capable of being used with any input-output measurement.
- The sources of inefficiency can be analyzed and quantified for every evaluated unit [8].

Organizational excellences models possess don't have all the characteristics of the complete model. In the following, it listed some disadvantages of these models:

- Organizational excellence models are an additive models in which the interaction effects of variables and indices cannot be assessed. These interaction effects are known as synergic effects which may be more than the total of individual effects.
- There is a trade off between the model's criteria that results in covering the weakness of a criterion by the strength of another. Since the purpose of an assessment in this model is the evaluation of the realization of model's concepts, the rate of this trade off must be determined. For example, in the process of getting promotions, the satisfaction of customers cannot be sacrificed.
- Since achieving a maximum of 1,000 points in the criteria is the purpose of Organizational excellence models, no realistic promotion strategy is in the hand of decision maker. In other words, there is often a big gap between the evaluated unit and the standards of the ideal unit so that no useful information toward improvement can be gained from the evaluation.
- Because of qualitiveness of criteria and sub criteria, there is a high probability of wrong evaluations [9].

Some of the criteria recognized in Organizational excellence models model are qualitative and measuring of these criteria would not be easily possible. As the incorrect assessment may give an unreal image of the organization and then the organization would fall non-existence, so it deems necessary to design a control system which, in such situation, may alarm and warn the organization that the assessment is untrue. Because some of criteria in these models are so qualitative that the measurement needs the experienced individuals and experts, there is probability of arising errors in the self assessment on the basis of Organizational excellence models. With regard to difficult scoring, it seems necessary to design a system to control the accuracy of the assessment. To this end, it needs to use of DEA. The Organizational excellence models can be combined with a mathematical model such as DEA in order to generate a new ranking method and develop or facilitate the benchmarking process. The developed model of this paper is simple. However, it provides some new and interesting insights. The paper assesses the usefulness and capability of the DEA technique to recognize a new scoring system in order to compare the classical ranking method and the Organizational excellence models. The research indicates that the DEA approach is a reliable tool to analyze the latent knowledge of scores generated by conducting self- assessments.

Methodology of Research (Research Method, Tools, Population, Sample): This research is descriptive in terms of method in survey type. On this basis, two questionnaires were prepared in the spectrum of Likert and determined their validity and reliability.

Questionnaire 1: In order to modulation and combination of factors and components of evaluation point of view experts (Observantly, existence of 10 organizational excellence standard models in evaluation and having 285 evaluation common components). This questionnaires consist of 285 statements and was teacher-oriented by way Delphi method.

Questionnaire 2: In order to validation of derived evaluation factors and components.

After selection and combination evaluation factors and components (10 factors and 69 components), this questionnaires was teacher-oriented too. And carried out by Factor analysis method.

Owing to ranking of schools with use of DEA method, in conceptual framework this article, last factors, classified in 6 input factors and 4 output factors and conducted on 30 Iranian schools, in probational level. Statistical population was 300 experts in field of management

Research Questions:

- What are the factors and components of evaluation of schools, based on the factors of organizational Excellence models?
- What is the validation of factors of the evaluation framework from the vision of specialists and experts?
- What is the suitable framework for evaluating schools?

Findings:

Question 1: What are the factors of performance evaluation of schools based on the factors of organizational excellence models?

Studying 10 standard global model of organizational excellence in the field of evaluation of schools, first their input and output factors were recognized. These factors included eight main input factors (including 200 sub-factors) and five main output factors (including 85 sub-factors). With Delphi technique, the initial factors reduced to six main input factors (with 53 sub-factors) and four major output factors (with 16 sub-factors).

Table 1: Congruence Level of Main Input Factors

Main Factors	Quite Congruen	Congruen	Fairly	Incongrue	Quite Incongrue	No Idea	Total
1-Policy and Strategy	218	67	4	-	-	-	300
2-Leadership and Management	204	68	4	--	-	-	300
3-Customer and Market	193	87	8	-	-	-	300
4--Human Capital	214	75	5	-	-	-	300
5-Process and Organizing	200	91	2	-	-	-	300
6-Partners and Resource	188	164	9	-	-	-	300

Table 2: Congruence Level of Main Output Factors

Main Factors	Quite Congruen	Congruen	Fairly	Incongrue	Quite Incongrue	No Idea	Total
1-Results of Human Resources	232	64	4	-	-	-	300
2-Results of the Society	211	76	5	--	-	-	300
3- Financial and Economic Results	197	96	7	-	-	-	300
4- Performance Results	209	87	4	-	-	-	300

Table 3: Results of the Factor Analysis of the Selected Factors in Evaluation

Main Input Factors	Number of Sub-factors	Factor Value
1-Policy and Strategy	5	2.03
2. Leadership and Management	11	4.02
3-Customer and Market	9	3.11
4--Human Capital	10	4.38
5-Process and Organizing	8	3.27
6-Partners and Resources	7	2.12
Total=6	50	
Main Output Factors	Number of Sub-factors	Factor Value
1-Results of Human Resources	4	2.54
2-Results of the Society	3	4.23
3- Financial and Economic Results	4	3.65
4- Performance Results	3	5.26
Total=4	14	

Question 2: What is the validation of factors of the evaluation framework from point of view specialists and experts?

To answer this question, two methods were used. A: Descriptive Analysis B: factor analysis Tables 1, 2 and 3 show the analysis result.

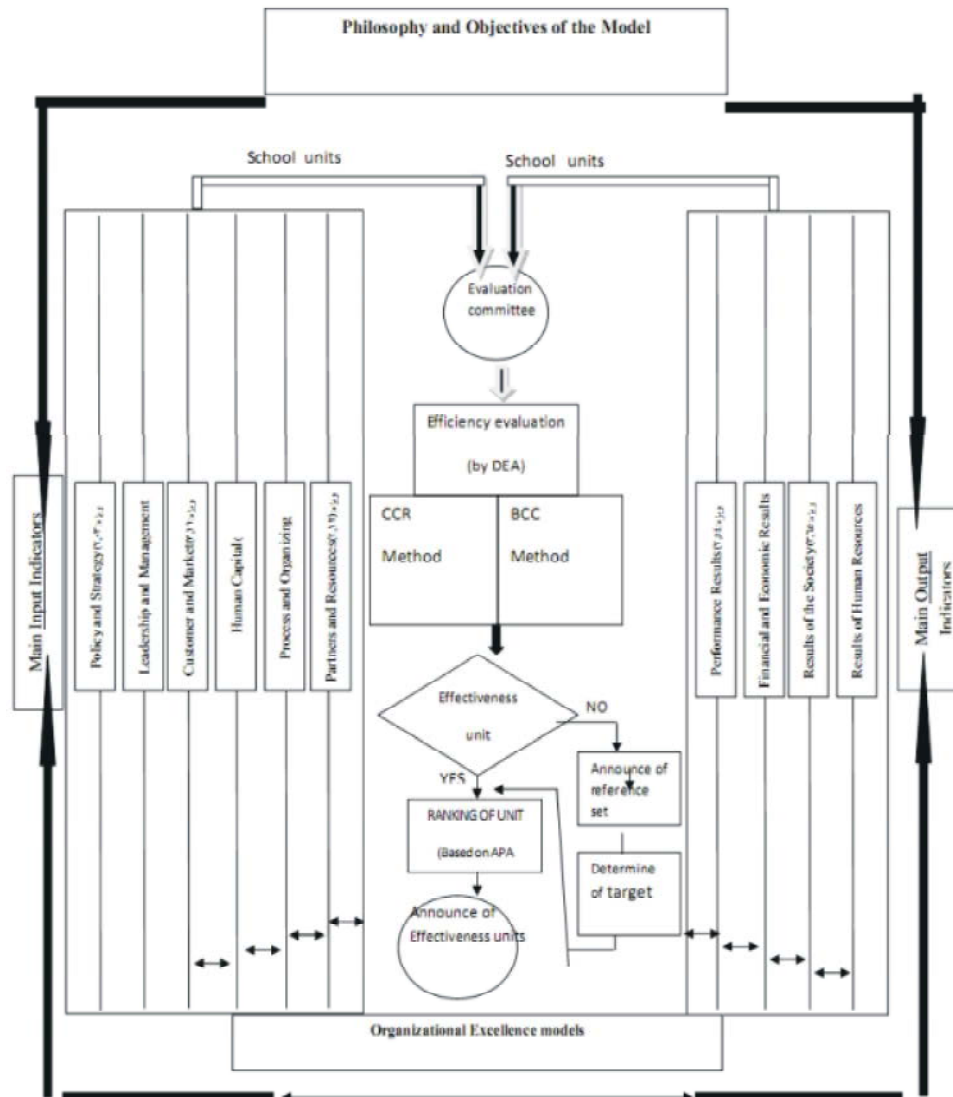
Question 3: What is the suitable conceptual framework for evaluating schools using data envelopment analysis (DEA?)

To answer this question, the philosophy of conceptual framework and type of organizational excellence models are expressed.

Conceptual Framework: Figure 1: Performance Evaluation Conceptual framework of Iranian Schools, Based on Factors of Organizational Excellence whit using of DEA.

Philosophy and Objectives of the Conceptual Framework:

- Determining the strengths, weakness and fields to be improved in schools.
- Giving strength to the schools strategies and support to institutionalize the schools mission.
- Evaluating schools with a system and quality oriented approach.
- Increasing the quality of educational activity.
- Modeling the educational performance of top schools.
- Setting an International Standard Performance Evaluation system with a national approach.
- Making the school costs effective.
- Creating a constructive competition among schools in order to improve performance.
- Facilitating the performance of management in reward system and upgrade schools.



- Creating a self-control and self-assessment system at schools.

Organizational Excellence Models: Include of: Deming, EFQM, Malcolm Baldrige, South Africa, Singapore, Canada, Australia, New Island, Japan.

CONCLUSION

School is one of the organizations which play a crucial role in the development of a society. According to the literature of the research, following certain changes in performance of schools and also changes in their performance factors in line with global changes and crises, the necessity of self-assessment (assessment based on factors of excellence) is considered

as a serious matter. In the proposed conceptual framework in this study, the main factors of performance evaluation in schools were introduced in two categories of factors (input and output factors). The input factors included: policy and strategy, leadership and management, customer and market, human capital, process and organizing, partners and resources and output factors included: results of human resources, results of the society, financial and economic results and performance results. In this respect and using envelop analysis methods, the optimal and efficient schools will introduced, In order to, inefficient schools so that they could compare themselves with their reference schools and target values to make changes in their input and output and improve their efficiency of performance.

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