

Developing Structure for Management of Quality in Schools: Steps towards Quality Assurance Systems

Farokhnejad Amir*

Educational administration, Persian Gulf Institute, Persian Gulf University, Boushehr, Iran

*Corresponding author: farokhnejad_shu@shyahoo.com

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Abstract Quality Assurance (QA) strategies have been considered in Iranian schools as an effective tool for creating, applying and reconstructing structures of quality and as the vital tool to improve teaching and learning processes in educational settings. Educational administrators and teachers in Iran tend to use these strategies to assist them in creating effective, creative and sustainable learning environment, but they are not aware of the real implications that QA might have. In this paper, our purpose is to shed light on developing QA strategies and structures. Based on an empirical study consisting of 150 educational experts in Iranian secondary schools, the research was conducted with the mixed methods. According to the results, feasibility of QA system was measured and the comprehensive structure of QA system was also designed including philosophy, goals, organizational structure, main networks stakeholders, functions and future plans. Findings may help academics and managers design QA systems in order to achieve higher innovation of quality performance management in schools.

Keywords: *Quality Assurance, Iranian schools, mixed method approach, Iran*

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1. Introduction

In many developing and developed countries, the increasing impact of globalization, internationalization and increased economic competition, have caused countries to change their economics and support human resource development strategies in order to meet the demands requested by the changing external context. In particular, many governments pay attention to their education system towards continuous improvement. There is an extensive concern in many countries over funding, accountability, quality, and managerial efficiency related to educational systems [1].

During recent years concerns about quality in education and conceptualizing to evaluate, improve and enhance quality have attracted increasing attention in many parts of the world including Iran. The discourse of quality assurance in educational setting was raised with a delay of two decades in Iran compared to other countries. Many researchers have tried to shed some light on the quality debate in educational settings (Cheng, 1997 [2]; Bogue, 1998 [3]; Dill, 2000 [4]; Grant, 2002 [5]; Kistan, 2005 [6]; Anderson, 2006 [7]; Hodgkinson and Kelly, 2007 [8]; Doherty, 2008 [9]; Pak Tee Ng, 2008 [1]; Chung Sea Law, 2010 [10]).

Focusing on higher education quality systems experiences, we looked at the comprehensive structure of QAS consisting of philosophy, goals, organizational structure, main networks stockholders, functions and

future plans, from both policy and school perspectives at an educational system in Bushehr City.

This paper focused on two elements. First of all, the feasibility of QAS and procedures for identifying in quality assurance processes. The second element was to design the structure procedures of QA. The target group engaged with the second issue was identified as responsible experts within organization, such as Deans, Deputy Deans, Associate Deans and Heads of Department and sections. Our study has been guided by two major questions:

(1) Regarding national and international experience in higher education, what is the suitable quality assurance structure for educational system?

(2) What are the main aspects of this new system?

Reviewing the above-mentioned issues, this study has two aims. The first aim is to survey the feasibility for designing and implementing a QAS at an educational System and the second one is to develop a model or structure for QAS.

2. Quality Assurance in Educational Systems

Defining quality in higher education has proved to be a challenging task [11]. Researchers and practitioners have different concepts on what quality in higher education is. Definitions given by business organizations and the academic world on the term "quality" of higher education are quite different [12].

Quality development has followed a modularity approach by singling out organizational processes, describing and quality assuring them. The new generation – or era – focuses on change more than on control, development rather than assurance, and innovation more than compliance [13].

The development of education quality assurance mechanisms becomes a key thrust in many education systems [1]. The QAS can be described using the concept of the quality map. The quality map is a visual representation of how the environment is taken into account in strategic planning [12].

Quality approaches suggest that organizations are the systems which essentially consist of input, transformation and output components. Program evaluation suggests a systematic and comprehensive evaluative approach viewing the school organization as an entire system with its programs and functions in practice [14].

From the above view it can be pointed out that quality has to do with three important catchwords namely degree, excellence and satisfaction. The term quality can therefore be taken to mean the extent to which consumers of products or services are satisfied that these have met the prescribed degree of excellence. This suggests the need for establishing quality standards to help to measure and assure the extent of goodness or degree of excellence of a product or service [15].

Jeliazkova and Westerheijden (2002) developed a phase model to analyse and schematize the developments in educational quality assurance in the higher education sector of The Netherlands [1].

Hodgkinson and Kelly (2007) identified the ways in which the need of improvement was prioritized. They analysed the different “quality” models and gave suggestion for employing and evaluating these models within UK business schools.

One of the critical questions to develop a quality assurance system is what the phase of this design is. According to Ng (2008) Quality assurance develops in:

Phase of standardization;

Phase of local accountability; and

Phase of diversity and innovation [1].

However, Chung [10] argues that “a mismatch between the rhetoric and reality of educational quality has become a common experience of most practitioners, not only in western contexts from which these approaches were originated, but also in other cultural contexts that have adopted them uncritically. ... as currently manifested, tends to favour the institutional aspects rather than the student aspects of the quality issues, and tends to lean more on the accountability-led view rather than the improvement-led view of quality assurance”(p. 64).

3. Research Methodology and Data Collection

3.1. Research Method

This was a descriptive-surveying method investigating the critical factors for designing and implementing a quality assurance system at an educational system. According to the literature of feasibility system, a questionnaire encompassing the main part was designed.

A 20-item questionnaire was used to identify the success factors of quality assurance system. Using a Likert scale being from strongly disagree, disagree, no opinion, agree, or strongly agree to gather the data. The results were led to develop the model. The study population consisted of 150 managers, experts, and staffs engaging in quality evaluation efforts and decision-making in the Bushehr Province Educational System (BPES). Meanwhile, to evaluate the questionnaire, 30 experts were asked to take part into a pilot test. The pre-test participants expressed strong agreement for the suitability of the feasibility questionnaire. The questionnaire became finalized after little modification.

3.2. Data Collection

The study population was members of the BPES as an organization including managers, senior experts, and effective staffs in decision-making. Some training courses on quality evaluation and organizational success were held for the people in the BPES. In order to understand the viewpoints on quality assurance system from different sectors of the organization, questionnaires were sent to different sectors including administrative, educational, evaluation and secondary schools. The number of questionnaires sent out was 150; the number returned was 120, which showed a return rate of 80%. Of the returned questionnaires, 10 were incomplete and thus discarded, making the number of valid questionnaires returned 110 or 73% of the total sent out. The Cronbach’s Alpha calculated from the 30 variables of this research was 0.94 (94%), which showed high reliability for designed measurement scale.

4. Findings

The demographic profile of the respondents is shown in Table 1.

Table 1. Demographic profile of respondents

Profiles	Classification	Frequency (%)
Gender	Male	54.5
	Female	45.5
Qualification	PhD	0
	Master’s	19.1
	Bachelor	80.9
	Others	0
Working experience	0-4	56.4
	5-9	19.1
	10-14	7.3
	15-19	9.1
	.20	8.2

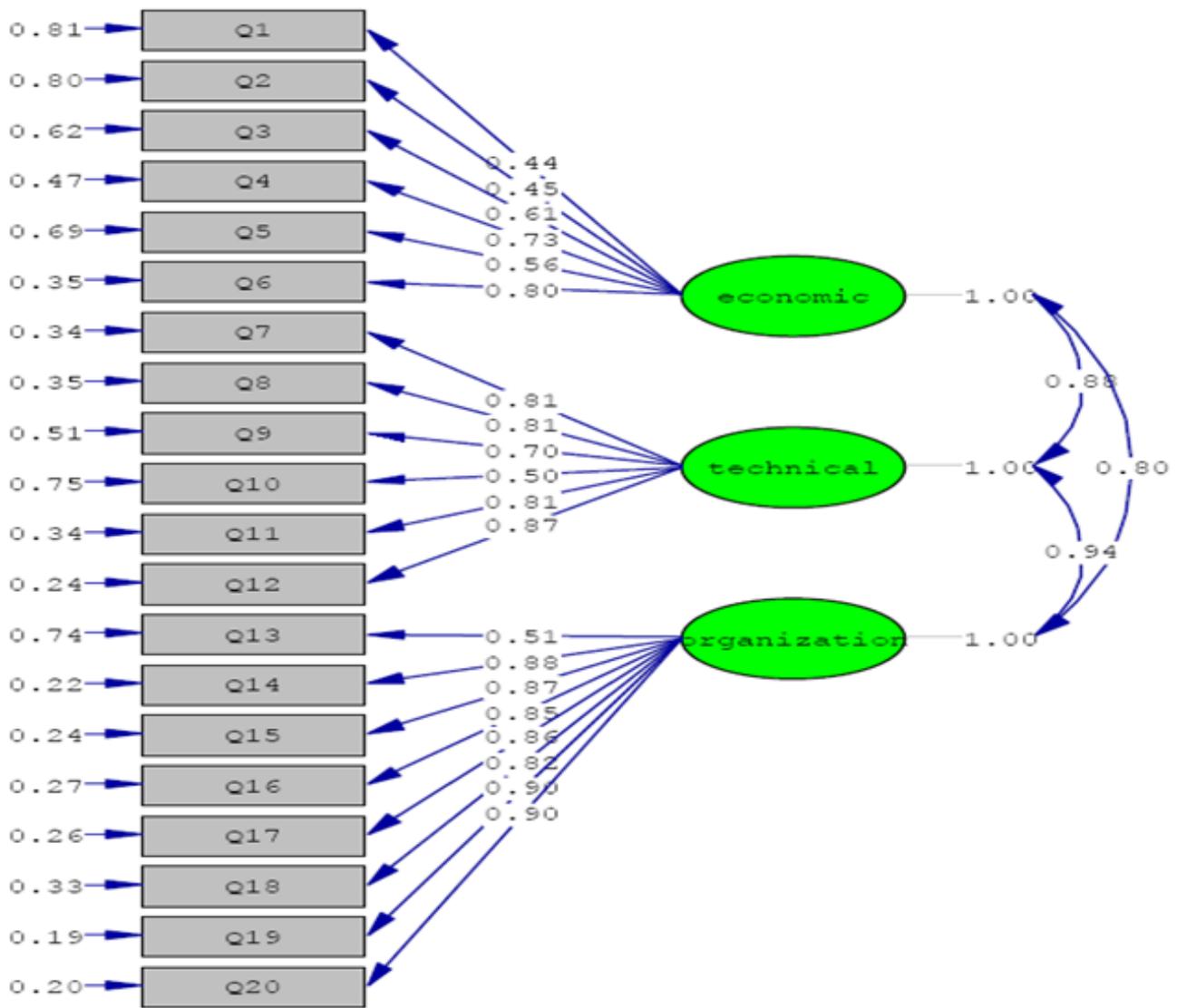
As mentioned, data analysis in this study was performed using confirmatory factor analysis to validate the feasibility model (CFA).

The measurement model with all three constructs was assessed using CFA. The first step in model estimation was to examine the goodness-of-fit of the hypothesized model shown in Figure 1. The observed normed Chi-Square for measurement model was 1.79 ($\chi^2/df = 299.48/167$) which was smaller than 3 recommended by

Bagozzi and Yi (1988) [15]. The GFI is 0.78, NFI is 0.94, CFI is 0.97, and RMSEA is 0.85. Other fit indexes included the goodness-of-fit index (GFI) and comparative fit index (CFI), they exceeded the recommended cut-off level of 0.9. The adjusted goodness-of-fit index (AGFI) also exceeded the recommended cut-off level of 0.8.

The RMSEA was below the cut-off level of 0.08 recommended by Browne and Cudeck(1993) [16]. The results of goodness-of-fit indices exhibited a moderate but acceptance level of overall model fit and, therefore, provided support to the overall validity of the structural

model. The combination of these results suggested that measurement model exhibited a good level of model fit. The second step in model estimation was to examine the significance of each hypothesized path in the research model. The result of the analysis showed that all of variables: the economic dimension (H1) with Path coefficient(0.86), technical dimension (H2) with Path coefficient(0.80), organizational dimension (H3) with Path coefficient(0.94) were found to be influential in designing and implementing of quality assurance system(QAS). All of the hypotheses were finally supported.



Chi-Square=299.46, df=167, p-value=0.0000, RMSEA=0.085

Figure 1. Results of structural model

Conceptual framework of QAS, derived from the concepts of quality assessment, quality assurance and improvement, and validation is shown in Figure 2 illustrating Quality assurance is developed in phases. We developed a phase model to analyse and schematise the developments in educational quality assurance in the education sector of Iran. This model adapts the idea and offers its own phase model as a framework of analysis of the quality assurance dynamics of primary and secondary education in Singapore [1]. The following phases are developed through QA: (1) Phase of Conceptualization of quality; (2) Phase of identification; (3) Phase of Feasibility

and evaluation; and (4)Phase of establishment of quality system, innovation

It is important to note that this phase model is not meant to be a description of fixed process, but is sustainable. While the major characteristics of each phase are somewhat different, overlaps occur. As one phase moves into the next, it is hard to define the boundary because while the system tries to shift to a new focus, the dynamics of the previous phase is actually more dominant. In reality, a system may exhibit characteristics of different phases, although one phase will take central stage [1].

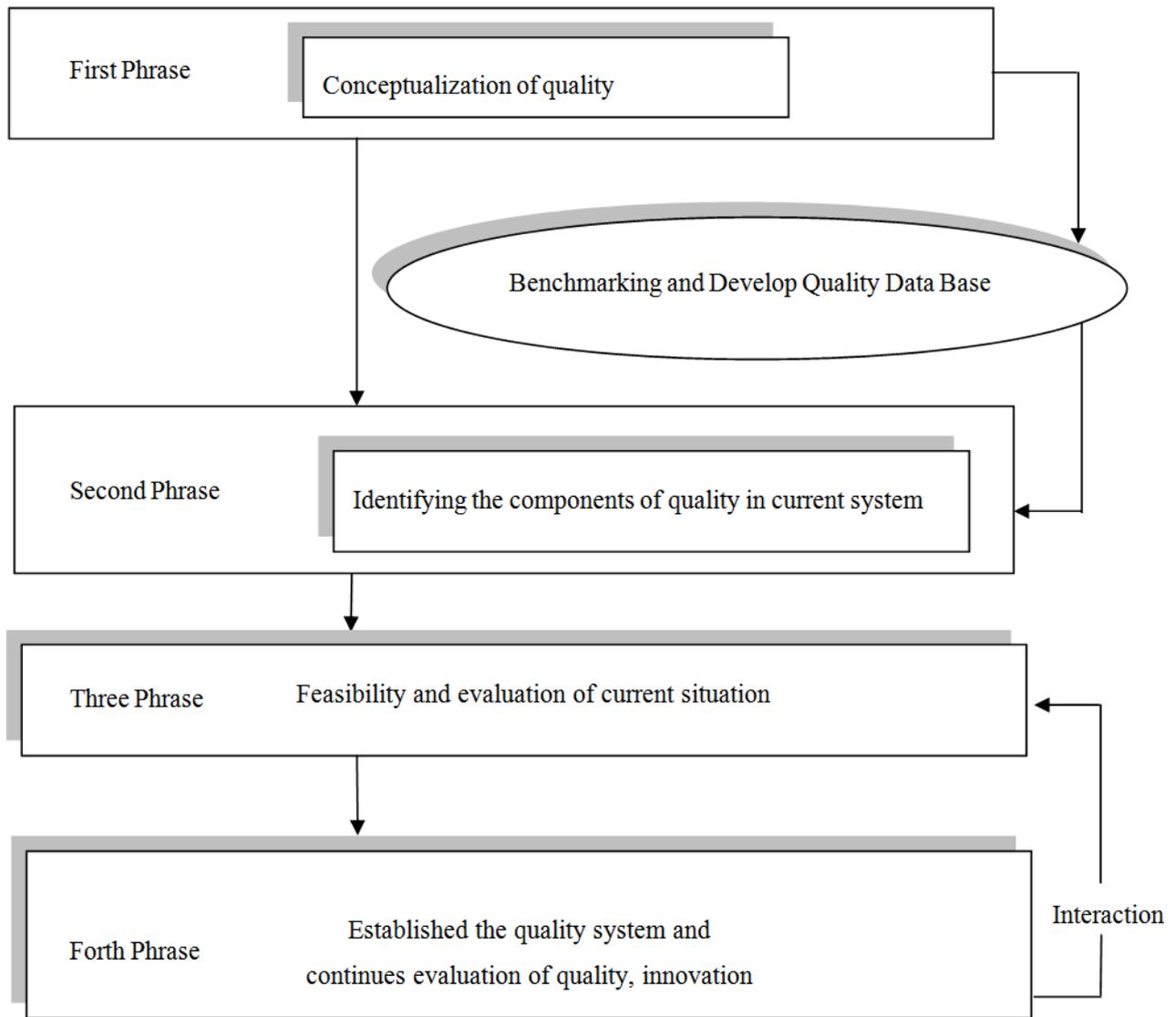


Figure 2. Conceptual model of Quality Assurance System in educational system, adapted from [1]

5. Conclusion

In this research, we tried to find an answer to the question “With the national and international experience in higher education, what is the suitable quality assurance structure for educational system?” furthermore, the main road map and aspects of this new system was investigated. The major contribution of this research lies in the development of model, which incorporates various steps for designing and implementing a QAS for Iranian educational system. According to the findings of the survey it is seen that for designing a successful and effective quality assurance system at educational system in Iran, planners and policy makers must be considered these three dimensions as well as four phases to develop the effective QAS. Results show that for developing the quality assurance strategy as the best choice, they must be focused in economical, technical, and organizational dimensions as main dimensions of feasibility system. Also, these findings suggest that QAS is more appropriate for improving evaluation flows and access to qualitative result within the organization.

Although the proposed model provides a framework for designing and implementing a QAS, there are some limitations in this study. First, the model did not consider all possible dimensions and factors, elements, and their interactions. Depending on these factors, additional factors and interactions, within this educational system, could be added. For example, several factors that have been supported in the selection of quality making strategies like organizational culture, leadership, structure, culture, innovative capabilities, and strategic goals of the organizations were not explicitly included in this model, but could be easily considered to improve the designing the QAS. Second, to increase the validity of these results it was desirable to invite more direct participation from a larger number of this educational system’s stakeholders; for instance, it would be appropriate to use expert and experienced teachers as participants in the data collection process; furthermore, the researchers have some suggestions for future research. Future work is planned along the following lines. First, a plan to include more elements and factors in developing the structural model should be taken in to place. Second, the number of participants is going to be increased to include more participants from each regional educational system being studied.

This will allow the development of a more robust structural model for each educational system and finally a common model for all educational systems across Iran. In conclusion, managing quality in educational system is a dynamic and multidimensional process. Therefore, there is very heavy dependency on the art of planner and designer to develop the effective QAS.

Ultimately, it can be said that any educational system must be aware that quality assurance is anything causing a beneficial change in quality performance, so for quality assurance and improvement, it must become an integral and essential part of an institution's operations, processes and procedures.

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