An Analytical View on the Performance of Vocational Schools: A Case on Evaluation of Outputs Quality of the Vocational Schools in the Second Region of City of Tehran

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Abstract

The present research, which is in the domain of descriptive, applied and evaluation researches have been implemented with the aim of "performance (outputs) quality evaluation of the second region Vocational Schools in city of Tehran." The data gathering sources in the stage of "judgment criteria" compiling have been surveyed. The survey was done by census and simple random sampling methods. The data gathering sources included experts and professors, the learners, administrators and assistants in Technical Schools and vocational, and technical education experts. In the stage of "output quality evaluation," these were vocational school administrators, alumni, and direct employers of employed alumni. To carry out the research, needed factors (7 factors) and indicators (45 indicators) had been compiled in two sections of "economic and non-economic" outputs. This was through adopting "existed national

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and international experiences," "organizational element model", and "education indicators systems". Using the "Judgment Criteria Questionnaire" and "Delphi Technique," judgment criteria (39 criteria) had been then determined. Using compiled factors and indicators, research tools including three questionnaires were advised regarding the validity (content validity) and reliability (Cronbach's Alpha Coefficient) characteristics. Having gathered the data, using compiled judgment criteria, the existed situation had been evaluated. Results show that, among seven factors, 5 factors including Intermediate Output (dropout and educational achievement), Fulfillment of Educational and Social Goal, Alumni (knowledge, skill, and creativity), Employment and Unemployment and Entrepreneurship are in an "undesirable" level and two factors including: Promotion rate to higher education institution and employers satisfaction are in "quite desirable" level. Both of "economic" and "non-economic" outputs had been evaluated in an "undesirable" level. Finally, the performance of vocational schools had been evaluated in an "undesirable" level.

Some recommendations are provided for quality improvement of the present situation. Results of this research can be used for future planning of the vocational school programs and their comprehensive quality improvement.

Key Words: Evaluation, Quality, Vocational Schools, Output, Vocational Education

Introduction and Stating of the Problem

There is no question that the education system is the foundational element for countries development and expansion and is referred to as "Development Industry". However, currently many governments are dissatisfied because they believe that such system is not able to respond to the current and future economic matters and social challenges in a suitable manner. Since 1975, the belief by many of the European and American countries has been that the economical development reduction and defeat in international competitions has been somehow related to the education system (Adent & Davis, 2002). It is obvious that countries economical development and expansion is tied to their education system and many econometric studies have shown that education is considered

an indicator of countries advancement and economic development (Adent, 1997; Martin, 1998; Dota et al., 1999; Person & Tablini, 1994; Hanoshk & Kimko, 2000). Most of these studies have been conducted based on the theory of "Human Capital". According to this theory, education makes the tools for increase of inputs of the marketplace and consequently the effectiveness of the outputs (Adent & Davis, 2002). This is why most of the developed countries allocate 5 to 7 percent of their gross national product (GNP) to the issue of education (The Organization for Economic Expansion and Collaboration, 2000).

It is true that the education system resolves the marketplace needs. However, the surfacing of ever-increasing changes and developments in the field of science and technology require preparation of development for the outcome of the required education and human resources. It is clear that today, changes in production technology, human capital, information technology, and change in the users' preferences have transformed the understanding on education and the necessary skills for the human resources (Lindbek & Snauz, 2000). Although today's economy, is knowledge-based, many of the employers believe that students are not prepared to meet the needs of this economy. For this reason, the modifications in the education system should further move toward being in balance with the modern economy and a developed harvesting of the human resource and education. (Tilver & Lehman, 2002).

Today, it is expected from the education system to train competent and efficient workers. They human resources as a result require to be "thinking workers" according to Edwars (1998), "productive workers" according to Rich (1991), "intelligent workers" according to Wan-dar-lind (2000), "multi-skilled workers" according to Lindbeck & Snawer (2000), and "knowledge workers" according to Tilver and Lehman (2003).

The existing literature in the field of skill trainings emphasize the importance and considerable influence of such training and education in the advancement and flourishing of social and individual goals (Newman & Ziderman, 1991; Fizbin & Pacharolopos, 1993; Benel, 1996; Bishop, 1998). It is more believed that this system focuses more on training semi-skilled

human resources and that the training of the expert human resources is left to the higher education system. Lami and Ping (1998) endorse this belief by explaining the importance of educating semi-skilled human resources and the societies needs for them. But truth of the matter is that such system should have the ability to train expert and skilled human resources[1]. As Halfman and Stin (2003) have mentioned, today, the high demand for expert workers has had a significant role in the unemployment of semi-skilled workers.

The reasons due to which the system of education of skills (skill-learning) is developed in Iran is notvery different from those reasons for the same development in other countries. In Iran as well, the industries need for skilled, semi-skilled, and movement along the path to reduce the gap between school and work are among the most important reasons for the development of this system. Among other reasons were universities low capacity for accepting students and the low amount skill possessed by the high school graduates, Therefore, considering the different reasons for establishment of vocational schools in different countries, there is a common need for evaluating the performance of these centers (Vantling & Barnard, 1984, McCainy et al., 1985, Star, 1986, Hall, 1987, Merker – Cler, 1988; Hachland et al., 1992). It seems that in Iran, this system has not had a satisfying performance and has been unable to reach the high goals based on which the system was set. Of course it is not fair to assume that all deficiencies are in the vocational schools system. It should be mentioned however that to some extent we can complain about the functionality of the involved persons. In Iran, today, we are facing a large pool of vocational school learners who do not have enough capability in the marketplace or have not been able to find a job related to their experty. In other words, the outputs of the system do not seem to be suitable. The mental judgment about the low output of this system is not reasonable and it is essential that the outputs quality is assessed through research that has strong theoretical foundation. In other words it is necessary to investigate the common mental picture about the success or lack of success, or quality or lack of quality of this system's output through exact and objective

1. The experiences by the German nation is a witness to this claim.

investigation of these outputs. It is clear that the evaluation of this system is not of less value compared to the importance of its original setup.

The current research attempts to judge about the performance quality (the outputs) of the system by evaluating the outputs. Through this, while the atmosphere is created to realize the existing facts, it becomes possible to offer suggestions in order to improve these centers' situation. Therefore we are able to see the extent to which there is divergence or convergence between the expected outputs and the actually existing outputs in the vocational schools, or generally speaking, it is possible to explain the extent to which the desired goals are fulfilled in establishing the vocational schools. In order to achieve this goal, the following questions have been stated:

1. What are the main factors and indicators for evaluation of performance (the outputs) of the vocational schools?

2. What is the quality of each of the selected factors and the indicators covered by each in the studied population?

3. In general, what is the performance quality of the vocational schools of the population being investigated?

Research Method

Due to its applied results in solving problems and difficulties of the education system, this research is of applied nature. Due to the fact that the research guides the authorities in the high school education system to understand more about the existing conditions, also because it helps with the decision making process, the research is descriptive and of survey type. Also, since it judges the education system components, it is also placed in the field of evaluation research.

In the stage for “evaluation of the outputs quality”, the statistical population consisted of boys vocational schools in Region 2 of the

city of Tehran, consisted of three sub-societies, including, the learners, the employers[1], and the vocational school principles.

Research Tools

Besides the use of available documents, this research has taken advantage of four questionnaires (the questionnaire for criterions of the suggested judgment, principals, learners, and employers). In order to find the validity of the questionnaires used in this research, "content validity" has been considered. To provide for this, the questionnaires questions have been designed in a way to gather all necessary data for the factors and the compiled indicators. For this reason, we can claim the content validity has been resulted. To calculate the reliability of the research questionnaires, the Cronbach's Alpha method has been used.

Stages of the Research Conducting

The research operation stages included, a. Compilation of enough and introducing factors for the evaluation of the quality of the vocational schools outputs; b. Compilation of enough and introducing indicators[2] for evaluation of the quality of each of the factors. The basis on which the factors and the indicators were compiled included: 1) The approved goals for the Vocational Schools branch of high school education system; 2) The opinions by the professors of educational evaluation and the evaluation experts; 3) The conducted researches about evaluation of educational systems (including higher education, and the normal education system, especially the technical branches of the high school education system (including Vocational Schools) and technical and vocational); 4) The status of skill-learning vocational schools; 5) The experiences of the authors in the field of educational systems evaluation; c. Compilation and design of

1. Employers and learners are among the most important resources for the gathering of information for evaluating the quality of Skill Learning System components (Specially the functional components output - Burnett & Clark, 1999)
2. Indicators, are exact introducing elements for judging and comparing, with the help of which we can evaluate the efficiency and accomplishment of goals. (Salehi, 2005:76a)

judgment criterions[1] (in the form of suggested criterions of the suitable status).

In order to analyze the collected data the descriptive methods were used (distribution, mean, percentage) and in order to judge about the indicator questions certain factors were used, which included, judgment spectrums, and judgment criteria in three levels of "desirable", "relatively desirable", and "undesirable".

Research findings and discussion about them

The results of factor evaluation intermediary output (educational advancement and drop-out) showed that the status of educational advancement and drop-out in courses from the Vocational Schools of the studied population is at the "undesirable" level and is far from the expected quality level. Unfortunately one of the most common issues with skill education system in Iran, especially with Vocational Schools is that these schools are a forced option for inefficient students from the point of view of educational advancement. This is such that having interest to continue education in such schools has very minimal importance. This process has lowered the positive attitude about these schools and we must admit that undesirable educational advancement endangers occupational success as well.

The results of the factor evaluation (the factor for fulfillment of social-educational goals) showed that this factor is at an undesirable level through gaining a score of 1.48. In other words the gap between the achieved goals and the expected goals, is noteworthy and deep. As it clearly appears in Iran, the skill weaknesses of the graduates of Vocational Schools are weak in performing the occupational responsibilities after completion of their skill education periods.

The results of the factor evaluation (the alumni's knowledge, skill, creativity) showed that this factor is at an undesirable level through gaining a score of 1.57.

1. The standard, is the base and the main key for judgment in an evaluation because it shows the extent to which characteristics & necessities should exist in a phenomena to be considered appropriate. (Mohammadi et al., 2005: 186)

The results of the factor evaluation (occupation and unemployment) showed that the status of the occupation of the students of the Vocational Schools of the studies population is not only uncoordinated with the expected goals and judgment standards, but is in fact so different that we can call them in the contradicting and opposite sides of an axis.

The results of the evaluation of the factor of “entrepreneurship” has shown that, this factor is at an undesirable state by gaining a score of one. The writers believe that the expansion of “entrepreneurship” is the changing and developing motor for economical balance and is one the most serious meta-needs of the Iranian mono-product economy. We need to consider that there will be limited oil and natural resources in the future. At the meanwhile, there are extended threats to boycott these resources. There is also low amount of utilization of human resources in governmental and government-dependent organizations and there is crave to balance the number of people in these organizations. Noteworthy also is the high amount of unemployment in the country and the large number of newcomers to the job field. For all of these reasons, entrepreneurship and distribution of the entrepreneurship culture is not only a need of the society but also undeniable necessity for the country. entrepreneurship, like all other things needs its own necessary material.

If we consider entrepreneurship “learning how to establish and manage small and medium sized businesses” (Yong, 1998), it should be said that in the studied population, such entrepreneurship has not been created. This is while the same conditions in developed countries such as the United States are bright.

The results of the evaluation of the “employer's satisfaction” factor showed that this factor is at a “relatively desirable” state with a score of 1.75.

There is now clarification for each of the factors for the status of operation quality in Vocational Schools population. The result is that most of these elements were at an undesirable state (5 factors from the total of 7). What this means is that the Vocational Schools have a long way to go to reach the desirable state and achieve their final goals.

Research Suggestions

These are suggestions for further work: The investigation of the investment return of Vocational Schools and its comparison with technical schools for technical and vocational studies; Investigation of evaluation methods of the learner's job skills in the job process; Investigation of improved methods for attracting the outer societies' collaboration in the design & conducting & evaluation of the curriculum in the Vocational Schools, especially that help of the industrial sector; possibility assessment and stabilization of the comprehensive system of evaluation and quality assurance in the skill education system.

References

Agha-zadeh, Ahmad (1380/2001), Analytic Investigation of the Characteristics of Technical-Vocational Education Characteristics and Adult Education in Germany. The Quarterly Journal of Educational Researches. Volume Nine, No. 3 & 4.

Bazargan, Abbas (1381/2002). Educational Evaluation. Tehran, SAMT Publications.

Khallaghi, Ali-Asghar (1381/2002). The Modification of Iran's Technical-Vocational Education: Lessons from Australia's Technical-Vocational Education. The Collection of Articles in the National Conference of Educational Modifications. Tehran: Research Center for Education.

Salehi, Keyvan (1384/2005a). Introduction to research writing. Tehran: National Organization for Educational Testing Publication Center.

Salehi, Keyvan (1384/2005b). Evaluation of Vocational Schools with the Help of CIPP Model: A Case from Vocational Schools of the Second Region of the City of Tehran. The Faculty of Psychology and Educational Sciences of Tehran University.

Fat-h-Abadi, Mohammad-Bagher (1380/2001). Investigation on the Occupation Status of the Learners from Year 1995 to 1997 of Vocational Schools Branch of the Central Province. Research Project. Arak: The Education Organization of the Central Province.

Nafisi, Abdol-Hossein (1999(. Investigation of Deficiencies of the Relationship between the Technical-Vocational Education System and the Job-Market and Offering Modifying Solutions. Tehran: Madreseh Publications. Ministry of Education, The Organization for Research and Educational Planning.

Histrich, Robert D.; Peters, Michael B. (2002). entrepreneurship. Translated by Feyz-Bakhshi, Seyyed Ali-Reza; Taghi-Yari, Hamid-Reza (1381). Tehran: Sharif Polytechnic University, Scientific Publications Institute.

Adnet, N. & Davice, P. (2002). Markets for Schooling : An economic analysis.Routiedge Press.

Adnet, N. (1997). Recent education reforms: some neglected macroeconomics and misapplied microeconomics Review of policy Issues, 3(3), pp. 59-78

Bennell, P. (1996). General versus Vocational Secondary Education in Developing Countries: A Review of the Rates of Return Evidence. Journal of Development Studies, 33 (2), pp.230-470.

Bishop, J. (1998). Occupation-Specific versus General Education and Training. Annals of the American Academy of Political and Social Science, 559 (0), pp.24-38.

Dutta, J., Sefton, J. & Weale, M. (1999). Education and public policy. Fiscal Studies, 20(4), pp. 86-351.

Edwards, Tony. (1998). Economic and Democratic Objectives of Vocational Education Evaluation and Research in Education, 12(1), pp.1-6.

Fiszbein, A. & Psacharopoulos, G. (1993) .A Cost-Benefit Analysis of Educational Investment in Venezuela: 1989 Update Economics of Education Review, 12 (4), pp.293-98.

Hanushek, E. & Kimko, D. (2000) Schooling, Labor force quality and the growth of nations American Economic Review, 90(50), pp. 1184-1208.

Hoachlander, E. G., Levesque, K., & Rahn, M. L. (1992). Accountability for vocational education: A practitioner’s guide

(Report No. MDS-407). Berkeley, CA: National Center for Research in Vocational Education.

Hofman, W.H.A. & Steijn, A.J. (2003). Students or lower-skilled workers? 'displacement' at the bottom of the labour market Higher Education, 45, pp. 127–146.

Hull, W. L. (1987). Comprehensive Model for Planning and Evaluating Secondary Vovational Education Programmes in Georgia. Columbus: The National Center for Research in Vocational Education, The Ohio State University, ERIC Document Reproduction Service No(ED 284 983).

Lehmann, W. (2005). Choosing to Labour: Structure and Agency in School-Work Transitions. Canadian Journal of Sociology. 30(3), pp. 325-350.

Lindbeck, A. & Snower, D. (2000). Multitask learning and reorganization of work: from Tayloristic to holistic organization. Journal of Labor Economics, 18(3), pp, 76- 353.

Lumby, J. & Ping, L. (1998). Managing Vocational Education in China. Journal of Comprative Education, 28(2).

Martin, J. (1998) Education and economic performance in OECD countries: an elusive relationship. Journal of Statistical and Social Inquiry Society of Ireland, XXVII, pp.99-128.

McKinney, F. L.; Farley, J.; Smith, M.; Kohan, A.; & Pratzner, F. (1985). Critical Evaluation for Vocational Education. Columbus: The National Center for Research in Vocational Education, The Ohio State University, ERIC Document Reproduction Service No(ED 255 761).

Merkel-Keller, C. (1988). The Battle for Vocational Education: An Evaluation of the Study Plan for the National Assessment (NAVE) and its First-Year Implementation. Paper presented at the American Education Research Association Annual Meeting, New Orleans, LA, April 5-9, ERIC Document Reproduction Service No(ED 292 990).

Neuman, S. & Ziderman A. (1991).Vocational Schooling, Occupational Matching, and Labor Market Earnings in Israe Human Resources, 26 (2), pp.82-256.

Persson, T. & Tabelllini, G. (1994). Is inequality harmful for growth? American Economic Review, 84, pp. 21-600.

Reich, R. (1991). The Work of Nations: Prepairing Ourselves for the 21st Century Capitalism. New York: Vantage Books.

Starr, H. (1986). Increasing the relevance of Vocational programes: A Data-Based approach. Columbus: The National Center for Research in Vocational Education, The Ohio State University, ERIC Document Reproduction Service No(ED 284 978).

Taylor, A. & Lehmann, W. (2002). Reinventing vocational education policy: pitfalls and possibilities. Alberta Journal of Educational Research, 48(2), pp. 139–161.

Van der. Linde, Dr, Ch. (2000). A new perspective regarding capacities of educational institutions to create work. Journal of Education, 121(1), pp. 8 - 54.

Wentling, T. L. & Barnard, W. S. (1984). A review of literature related to outcomes of Vocational Education. Urbana: University of Illinois, f. ERIC Document Reproduction Service No. (ED 250 48°).

Young, J. E. (1998). Want to be an Entrepreneur? New Mexico Business, 22(8), pp. 1-77.