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An Evaluation of the 18-Month Training Program of Technical and Vocational Training Organization (TVTO): A Case Study in Isfahan Province, Iran

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ABSTRACT

The purpose of this case study was to evaluate the performance of the 18-month training program organized by Technical and Vocational Training Organization (TVTO) in Isfahan province, Iran. This study utilized a program evaluation model to determine the performance of the training plan of TVTO. The population of this study consisted of all trainees of the TVTO 18-month training program, trainers, managers and experts who were responsible at the time of implementation, plus employers who had hired the trainees. The samples in this study comprised selected trainees, trainers, managers, and employers. The instruments used consisted of a set of questionnaires and interview protocols. Kolb's theory of experiential learning was used as the underpinning theory to explain the learning process while a program evaluation model was used to assess the training program from the perspectives of different stakeholders. Five main aspects of the training were evaluated, namely (a) graduates are needed by the job market, (b) education standards of the training in terms of curriculum are relevant, (c) facilities and equipment are adequate, (d) the trainers are competent, and (e) management are efficient. The results showed that job market was perceived as good for those who completed the training program. However, most respondents rated low on educational standards of the training program, facilities and equipment and trainers' competency. In conclusion, the TVTO training program has several key weaknesses that need to be taken into account. This study implicates that a significant revamp of the TVTO training program is needed to upgrade the quality of the skills training program in Iran.

Keywords: TVTO 18-month training program, management plan, educational standards, job market, Iran

INTRODUCTION

Industrial revolution has transformed the vocational education and training paradigm. The aim of technical and vocational education and training is to enhance the competency of an individual so that he or she could be employed in an industrial sector (Mustapha, 2017). In general, vocational competency could be defined as the level of vocational knowledge, technical skills, psychomotor abilities, and other work-related behaviors that are needed to complete vocational tasks. Locally, the concept of the skills development is to reduce youth unemployment and poverty. Globally, the aim of upskilling of the Iranian youth's capability is to enhance international competitiveness for Iran. In Iran, short-term (1 to 18 months) skills training has been offered by Technical and Vocational Training Organization (TVTO) as part of the work-based technical and vocational training. In Iran, technical and vocational training is under the Ministry of Cooperatives, Labor and Social Welfare (MOLSA) founded in 1980 by integrating three training bodies – MOLSA's General Directorate for Vocational Training, Apprenticeship Fund and Apprenticeship Society - as Technical and Human Resource Training Organization. Later in 1981, it was renamed as Technical and Vocational Training Organization (TVTO). There are about 600 TVTO centers in Iran. Evolution of TVTO was based on 10 ratified acts and article 151 of the Third Development Plan Act of Iran which was confirmed in the Fourth Development Plan (www.linkedin.com/company/iran-technical-&-vocational-training).

TVTO is the main organization in charge of short-term vocational and skills training in Iran. It leads the special committee on non-formal technical and vocational training with 16 members from various ministries, organizations, employee and employer associations. TVTO implements its training in both public and private sectors. Besides its headquarter, TVTO has 31 general administrations in provinces of Iran, an instructor training center (ITC), 552 learning centers and over 11,700 technical and vocational schools. In order to acquire modern technologies and to conform with international standards, Technical and Vocational Training Organization attempts to develop its international relations with other global agencies including ILO, International Vocational Training Organization and others (Iran TVTO, 2018).

Instructor Training Center (ITC) is considered as an advanced skills and specialized training center. It was established with the cooperation of International Labor Organization (ILO) and United Nations Development Program (UNDP) in 1974. It has 17 specialized training departments including electrical technology, automotive technology, welding, machine tools, CNC, IT, pedagogy, entrepreneurship, fashion design, wood technology, electronics, mechatronics, HAVC and home appliance, foreign languages, agriculture, construction and building technology. The center is ready to expand its cooperation with other training, educational and research institutions, organizations and industries based on its main objectives. Internationally, there was an agreement between Iran TVTO and FAGI – Federal Association of German Industries. Since the early 1984 with the economic investment of FAGI by German companies in Iran, they have initiated collaboration with Iran on vocational and technical training. On August 17, 1985 an agreement between the TVTO and the FAGI and the Institute for Social Good "Karl Doevsberg" was signed (Nikoy, 1991). Ten main vocational fields are selected to be in the training program: (1) tool and die, (2) industrial machinery (industrial mechanic), (3) automotive technology, (4) welding technology, (5) water, gas and air conditioning installation, (6) industrial electricity and electronic machines, (7) industrial electronics and broadcasting, (8) metal casting, (9) modeling, and (10) drawing.

In Iran, the technical and vocational training comprises two main pathways: the school-based and work-based pathways. One of the importance issues in Iran is how to effectively connect school-based and work-based learning? Work-based learning (WBL) paradigm is related to the real world of work and is designed to prepare trainees with academic and technical skills and to develop their employability skills. According to Hamilton and Hamilton (1997), work-based learning includes: apprenticeship or internship or mentorship, job shadowing, business/industry field trip, entrepreneurial experience, cooperative education, and service learning. Work-based learning is an essential component of TVTO. If it is successfully implemented, then it would make a significant contribution to the educational experiences and employment prospects for the young people.

TVTO's main task is to provide varied vocational trainings and research. In terms of training, there are several types of training such as mobile training teams (in remote areas), training in prisons, training in garrisons, training in industries, training in Instructor Training Center (ITC) and in private training institutions (14,000 institutions authorized by TVTO). TVTO trains skilled and semi-skilled labor force which is needed by industry, agriculture and service providers throughout the country (Iran TVTO, 2018).

Research, as one of the main tasks of TVTO, deals with solving major challenges between training and labor market and industries. Through research, TVTO attempts to understand the changing nature of industries and the skills they need, collects the information required for skills training curriculum development, identifies training software and hardware as training aid, and examines the effectiveness of the existing training systems and suggests the labor force replacement trend, upgrades the workers' skills and sets up unions for technical and vocational.

REVIEW OF LITERATURE

Historically, the root of the formation of the Technical and Vocational Training Organization (TVTO) of Iran went back to the approval of the internship and skills training regulations on January 17, 1961 by the Supreme Labor Council of Iran. After the Iranian Revolution, the organization was formed in 1980 by merge of the three educational units include the General Directorate of Vocational Education of the Ministry of Labor and Social Affairs, the Internship Fund and the Internship Center, called

the Technical Education and Manpower Organization. In 1981, it was renamed to current name which is the Technical and Vocational Training Organization (https://en.m.wikipedia.org/wiki/Iran_Technical_and_Vocational_Training_Organization).

The main mission of Technical and Vocational Training Organization is skills training, research, production of educational standards and labor force evaluation. The TVTO with 552 permanent training centers and with the support of 11,700 private schools and 21,000 instructors, annually provides educational services to approximately 1.5 million people in both the public and private section. The target groups of the organization for skills training are: job seekers, employees (enterprises - unions and guilds), students and university graduates, residents of deprived and country borders areas, vulnerable groups including female-headed households and working adolescents, housewives, people with disabilities, villagers, nomads, prisoners, recovering addicts, the socially disadvantaged youth, foreign nationals and refugees (https://en.m.wikipedia.org/wiki/Iran_Technical_and_Vocational_Training_Organization).

The aim of technical and vocational education is to prepare people for work in a variety of sectors – industry, agriculture, services, education, and training. Reviewing worldwide educational systems revealed that vocational education including skills training in the secondary schools, dual system, post-secondary institutions, further education, and higher education systems. At the moment, the improvements of technical and vocational education system are based on some theories. Hence, stakeholders are implementing several approaches in order to enhance the quality of technical and vocational education in public and private sectors. The labor market is constantly in need of new knowledge and skills (Stenstorm, 2009; Nourian & Ghoddousi, 2015).

In this study, the development of quality learning in technical and vocational education and training is based on experiential learning theory. Kolb's experiential learning is a well-known theory in education. Kolb's experiential learning theory (Kolb, 1984) defined experiential learning as a process whereby a new knowledge is created as a by-product of meaningful experience. Kolb's experiential learning theory presents a cycle of four elements: (1) concrete experience, (2) reflective observation, (3) abstract conceptualization, and (4) active experimentation. In another perspective, Andresen, Boud and Cohen (2000) provided criteria for experience-based learning such as something personally significant or meaningful to the students. They should (a) be personally engaged, (b) possess reflective thinking, and (c) be provided with opportunities to discuss their experiences. Based on their empirical experiences, the trainees should experience meaningful learning by engaging their senses, their feelings and their personalities. Based on their prior learning, they should bring into the learning process a dynamic strategy to acquire new knowledge and skills. Teachers, on the other hand, need to establish a sense of trust, respect, openness, and concern for the well-being of the students.

Another theoretical dimension is how to raise the quality of technical and vocational education that is related to knowing what, how, and why (Wilson & Peterson, 2008). With regards to technical and vocational education system, it is generally rooted in three stages: input, process and output. The core problem in TVET is the skills mismatch between the training institutions and the job market (Nafisi, 2008).

TVTO is responsible to offer short-term technical and vocational training courses as stipulated by the law. In the context of training, TVTO offers 1 to 18-month courses to supply the skilled workers for industrial, agricultural, and service sectors such as mobile centers (rural regions and prisons), training in the garrison, training in the instructor training center, and training in the private sector (open schools), on the-job-training, and technical self-assistant training. The training is supervised and evaluated continuously by experts in the respective fields in order to maintain the quality and robustness in using new technologies.

TVTO is also engaged in research and evaluation to determine the effectiveness of the trainings provided. Research is one of the fundamental activities of TVTO. It was designed to investigate the challenges between the trainings with the labor market requirements of the industries. In addition, TVTO needs to gather the necessary information to enhance the quality of the vocational training and to improve skills standards. It was also designed to enhance the employability skills of the workers. In this article, evaluation is defined as a systematic process of assessing the implementation of a training program. For trainee evaluation, testing is performed in two stages - theoretical and practical aspects. Testing for trainees is held in training centers of TVTO and designated private institutes. The characteristics of courses and the quantity of minimum equivalent experiences:

A. The 18-month training specialized skills courses (equal to 2800 hours), equivalent to 8 years' experience
B. The 18-month training specialized skills courses (equal to 2700 hours), equivalent to 7 years' experience
C. The 9-month skills level 1 training (equal to 1200 hours), equivalent to 6 years' experience
D. The 6-month skills level 2 training (equal to 900 hours), equivalent to 4 years' experience
E. The in-plant and on-the-job training, skills upgrading less than 6 months, proportional to the duration of the course, equivalent to 3 years' experience

Assessment is critical in order to improve technical capability and professional skills required by the industrial sector. In this study, five areas have been assessed: (1) management plan, (2) trainers' competencies, (3) the standards of the courses, (4) facilities and equipment, and (5) job market needs.

PROBLEM STATEMENT

According to Ghehi et al. (2018), Iranian training system is subjected to external shocks that affected its economic and training systems. In addition, internally, the inefficiency of the vocational school-based system which is slowly to respond to the fast-moving technology in the industrial sector has significant repercussion to the human resource development. According to Behbahani (2010), there was a lack of planning for the employment of graduates of technical and vocational education. In order to determine the structure of occupational demands for human resource development, evaluation of the performance of vocational and skills training is a necessity. The shortage of engineers, technicians, mechanics and skilled workers due to the economic growth but the secondary education has shown lack of coordination to produce the skilled workers. And the low compatibility between the contents of the vocational programs and the needs of industrial sector posed another challenge (Behbahani, 2010). Hence, the work-based training is seen as a silver bullet to solve the poor performance of the school-based vocational training. TVTO was established to champion the work-based training. In the recent years, the performance of the TVTO has been evaluated. Several studies have examined the organization's performance in certain domains such as curriculum and delivery, assessment systems, management, standards of training, stakeholder engagement, facilities and equipment, labor market requirements, benchmarking and international networking (Abdullah & Sadatmand, 2011; Emadzadeh, 2003; Mehralizadeh, 2016; Shariatzadeh, 2001; Shirvani, 2001).

THE CONCEPTUAL FRAMEWORK

The overall goal of work-based learning is to build meaningful relationships among knowledge, skills, attitudes and to bridge vocational schools and the workplace (De Bruijn & Legman, 2011). Based on the literature review, several indicators were found to be pertinent in the evaluation of the performance of the skills training such as management plan, trainers' competency, equipment and facilities, educational standards, and the fulfilment of job market needs. In the context of theoretical framework, this study has utilized Kolb's experiential learning theory. Kolb (1984) defined experiential learning as a process whereby a new knowledge is created as a by-product of meaningful experience. Kolb's experiential learning theory presents a cycle of four elements: (1) concrete experience, (2) reflective observation, (3) abstract conceptualization, and (4) active experimentation. In another perspective, Andresen, Boud and Cohen (2000) provided criteria for experience-based learning such as something personally significant or meaningful to the students. They should (a) be personally engaged, (b) possess reflective thinking, and (c) be provided with opportunities to discuss their experiences. In addition to Kolb's theory, literature also highlighted the importance of these factors in skills training – labor market, management plan, training standards, infrastructure and equipment, and trainers' qualification. The main assumption in this study was that these indicators were pertinent to be evaluated so the

performance of the training can be determined. As such, program evaluation model was utilized in this study to assess the achievements of these indicators. Figure 1 illustrated the conceptual framework of the study.

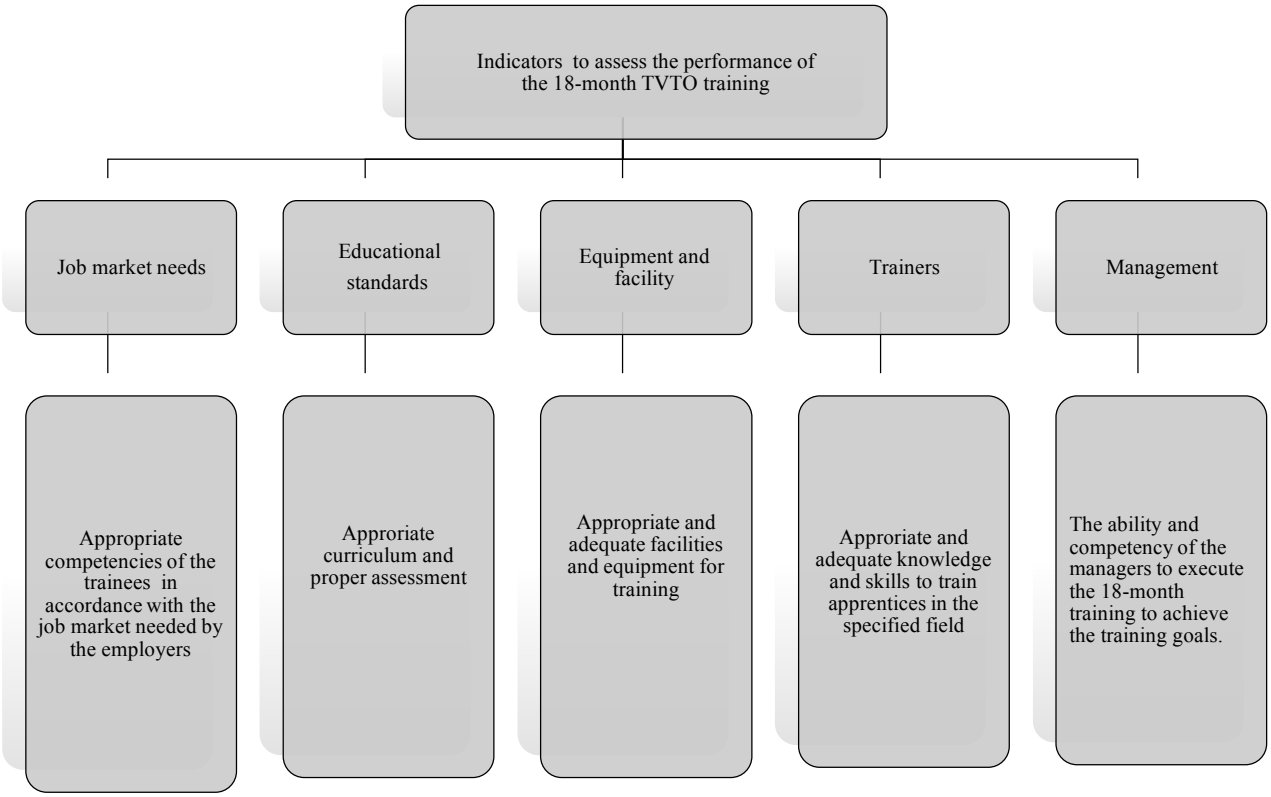

Figure 1: Conceptual framework

PURPOSE AND RESEARCH QUESTIONS

The purpose of this study was to evaluate of the performance of 18–month TVTO training program in the city of Isfahan, Iran. Specifically, the research question of the study was:

1. What are the status of educational standards, equipment and facilities, trainers, management plan, and job market for the TVTO 18-month training program?

METHODOLOGY

Research Design

In this study, case study research design has been used. A case study is an in-depth study of a particular situation rather than a sweeping statistical survey. It is a method used to narrow down a very broad field of research into one easily researchable topic. According to Yin (2014), the goal of case study is to understand complex social phenomena and real-life events such as organizational and managerial processes. The population of this study consisted of all trainees of 18-month training program, trainers, managers and experts who were responsible at the time of implementation, plus employers who had hired the trainees. The samples in this study comprised selected trainees, trainers, managers, and employers. In this case study, the data were collected from two groups. The research instruments consisted of a set of questionnaires and an interview protocol. One group was interviewed and the other group was given questionnaires. Interview participants were purposefully selected whom were 12

expert-managers from the department of TVTO, 10 trainers, 15 former trainees and 9 employers. Questionnaires were administered to 16 expert-managers from the department of TVTO, 12 trainers, 50 former trainees and 9 employers. Table 1 displayed the samples in this study.

Table 1: Diverse groups involved in the research

	Questionnaire based on random sampling	Interviews based on purposeful sampling	Total
Managers & Experts	16	12	28
Trainers	12	10	22
Trainees	50	15	65
Employers	9	9	18
Total	87	46	133

Table 2 showed the fields of study in TVTO and the length of the courses.

Table 2: The fields of skills training in TVTO (h: hours)

	Fields	Courses	Time (h: hours)
1.	Machine tool (lathe trend)	Metallurgy, industrial electricity, gas and electric welding, preliminary milling, stoning, shaper specialized lathe.	2800h
2.	Machine tool (milling trend)	Metallurgy, industrial electricity, gas and electric welding, basic milling, stoning, specialized milling.	2800h
3.	Mechanical industry	Metallurgy, industrial electricity, gas and electric welding, CNC machine tools, milling, mechanical work, blacksmith, piping, casting, hydraulics, and pneumatics.	2800h
4.	Welding	Metallurgy, soft solder, cutting, acetylene gas welding, welding rods, manual arc, destructive and non-destructive testing.	2800h
5.	Automotive industry	Mechanical and hydraulic brake systems, electrical and automotive electronics, power transmission, diesel engines, various command systems, maintenance operation modern engines (fuel injection).	2800h
6.	Industrial electricity	Metallurgy, general electric (building and industrial), advanced electronics, motor control DC, laboratory PLC.	2800h
7.	Industrial electronics	Metallurgy, general electric (building and industrial), advanced industrial power, laboratory electronics laboratory PLC.	2800h
8.	Mechanical construction	Metallurgy, industrial electricity, general plumbing, mechanical pipe fittings, central heating installation, air conditioning installation, gas installation, pumps and pumping fluids and technology.	2800h
9.	Mechatronics	Metallurgy, gas and electric welding, lathes and milling, industrial electricity, screw system, industrial electronics.	2800h

INSTRUMENTS

In this research, the empirical data were collected by using a set of questionnaires and an interview protocol. The questionnaire was developed based on the purpose and the conceptual framework of the study. The constructs were operationally defined. To determine the face and construct validity of the questionnaire, several experts were appointed to review the questionnaire. Based on their comments, the questionnaire was revised. Ambiguous items were modified, shortened or deleted. Pilot study was conducted to ensure the respondents understood each item being asked. Next, the reliability of the questionnaire was measured using internal consistency index of Cronbach Alpha. The Alpha was found to be relatively high, $\alpha = 0.88$. Hence, the questionnaire was valid and reliable. The questionnaire has six sections: A - Demographics of the respondents; B - Management plan, C - Trainers, D - Facility and equipment, E - Education standards, and F - Job market needs. A five-point Likert scale was to measure the five constructs. The scale comprised Highly Satisfied = 5, Satisfied = 4, Neutral = 3, Dissatisfied = 2, Highly Dissatisfied = 1. The range of means were constructed to assist the researchers to interpret the mean scores. The quantitative data were analyzed using statistical software SPSS.

To collect qualitative data, a semi-structured interview protocol was constructed. The interview questions were tailored to obtain inputs from the informants regarding the main issues and factors affected the performance of the TVTO 18-month training program. For the interview data, thematic analysis was conducted to categorize the data based on the emerging themes. Initially, the open coding was used to identify the relevant themes to capture the strengths and weaknesses of the TVTO training programs. However, due to limited publication space, the results of the interview data will not be presented in this article. The qualitative data may be presented in other future publication.

RESULTS

In this study, the perceptions of trainees, trainers, managers, experts and employers were collected using mainly a set of questionnaires. Table 3 showed the perception of trainees regarding the effectiveness of TVTO training programs. The apprentices were highly satisfied with the training program in terms that it has fulfilled the job market needs ($M = 4.20$; $SD = 0.47$) and the management plan was good ($M = 3.97$; $SD = 0.89$). However, they just slightly satisfied ($M = 3.62$; $SD = 0.83$) regarding the trainers' skills (see Table 3). Similarly, the trainers, in Table 4, admitted that their competencies might need upgrading ($M = 3.57$; $SD = 0.94$). Nevertheless, the instructors rated education standards ($M = 3.24$; $SD = 0.61$) and job market ($M = 3.54$; $SD = 0.67$) rather low. On the positive note, the trainers perceived the effectiveness of the management plan ($M = 4.19$; $SD = 0.67$).

In Table 5, managers and experts were uncertain about management plan ($M = 2.97$; $SD = 0.78$), trainers' competency ($M = 3.01$; $SD = 0.73$), education standards ($M = 3.15$; $SD = 0.85$), facility and equipment ($M = 3.16$; $SD = 0.63$) but they were slightly satisfied with the job market ($M = 3.53$; $SD = 0.42$). Finally, Table 6 illustrated that employers' perception on the training program. Obviously, the employers were highly satisfied with the job market ($M = 4.24$; $SD = 0.42$) but they rated rather low on other aspects such as the facilities and equipment ($M = 3.28$; $SD = 0.63$), educational standards ($M = 3.31$; $SD = 0.85$), trainers' competencies ($M = 3.38$; $SD = 0.73$), and management plan ($M = 3.43$; $SD = 0.78$).

Table 4: The perception of trainees regarding the effectiveness of TVTO training programs

Respondent		Management Plan	Capability of Trainers	Facility & Equipment	Educational Standards	Job Market Needs	Total mean
Trainees	Mean	3.97	3.62	3.77	3.84	4.20	3.84
	Number	50	50	50	50	50	50
	SD	0.89	0.83	0.74	0.54	0.47	0.63

Table 5: The perception of trainers regarding the effectiveness of TVTO training programs

Respondent		Management plan	Capability trainers	Facility & equipment	Educational standards	Job market needs	Total mean
Trainers	Mean	4.19	3.57	3.68	3.24	3.54	3.64
	Number	12	12	12	12	12	12
	SD	0.67	0.94	0.58	0.61	0.67	0.59

Table 6: The perception of managers and experts regarding the effectiveness of TVTO training programs

Respondent		Management plan	Capability trainers	Facility & equipment	Educational standards	Job market needs	Total mean
Managers & experts	Mean	2.97	3.01	3.16	3.15	3.53	3.16
	Number	16	16	16	16	16	16
	SD	0.78	0.73	0.63	0.85	0.42	0.68

Table 7: The perception of employers regarding the effectiveness of TVTO training programs

Respondent		Management plan	Capability trainers	Facility & equipment	Educational standards	Job market needs	Total mean
Employers	Mean	3.43	3.38	3.28	3.31	4.24	3.52
	Number	9	9	9	9	9	9
	Sd	0.78	0.73	0.63	0.85	0.42	0.51

DISCUSSION OF RESULTS

The main goal of this case study was to evaluate the performance of TVTO training program in Isfahan province. The empirical data were collected to assess the five main variables – job market, educational standards, equipment and facility, trainers, and management. Generally speaking, according to the results from the trainees' viewpoint, even though the trainees were satisfied with the employability in job market and the management plan, they rated relatively low of the trainers' competency. This implies that the technical instructors need to upgrade their knowledge and skills. Moreover, this program evaluation study found the requirements for training have not matched the job market needs, lack of optimal educational standards, outdated equipment and facilities, and lack of qualified trainers. The results also indicated that some trainees participating in the 18-month training program, in terms of ability and talent, the trainees have not achieved the competence at desirable level and have not had sufficient interest and motivation for the employment in the industrial sector. In some cases, the trainers pointed out that the trainees were not interested in the training course, had negative perception on the practical work in workshops and had poor workmanship.

The perception of trainees regarding the effectiveness of TVTO training program indicated that the apprentices were satisfied with the training program in terms that it has fulfilled the job market needs and the management plan was good. However, they rated slightly low regarding the trainers' skills. In addition, the training program may not fit and trainees' goals such as getting certification and relevant job. Some trainees who enrolled in the training program may not have the necessary ability and talent to learn the scientific and practical skills in certain courses. The trainees might imagine that technical and vocational fields are easier than the other fields. In general, the trainees participated in the TVTO program have not been satisfactory in terms of their ability and talent and they have not had sufficient interest and motivation for employment in the industrial section. Therefore, this TVTO case study in a metropolis portrayed that it was less successful to attract high quality trainees that matched the market needs.

Similarly, the trainers admitted that their competencies might need upgrading. Nevertheless, the instructors rated education standards and job market were rather low. On the positive note, the trainers perceived the effectiveness of the management. However, the managers and experts were uncertain about management plan, trainers' competency, education standards, facilities and equipment but they were slightly satisfied with the job market. Finally, the data illustrated that employers' perception on the training program. Obviously, the employers were highly satisfied with the job market but they rated rather low on other aspects such as the facilities and equipment, educational standards, trainers' competencies, and management plan. Therefore, TVTO needs to pay attention to issues and problems related to the performance of the 18- month training program. The data seemed to suggest that the organization was less successful in achieving its mission. The respondents were concerned with the instructors' lack of expected competency and industrial experience. The main objective of the TVTO training program is to train trainees to acquire knowledge and technical skills comparable to the workplace. Hence, the equipment and tools in TVTO workshops should be upgraded.

IMPLICATIONS

The purpose of this case study was to evaluate the performance of the 18-month training program organized by Technical and Vocational Training Organization (TVTO) in Isfahan province, Iran. The empirical data collected in this study from the four main stakeholders – trainees, trainers, managers, and employers have shown an interesting pattern. First, in terms of the theoretical implications, the data support Kolb's theory of experiential learning and Schultz's theory of human capital. In terms of experience, the trainers may have lacked of appropriate experience especially industrial experience and experience in using new technologies. The data showed that most respondents rated low on the trainers' competency. In terms of human capital theory, the length of the training may not be enough. The human capital theory assumes that the longer the training, the future income of the trainees will increase. So the length and the quality of the TVTO training should be reevaluated.

Second, the practical implications seem to point to the need to revamp the TVTO training curricula. The data illustrated most respondents were not satisfied with educational standards and the facilities and equipment in the TVTO training. Due to its centralized system, TVTO may face challenge of "slow progression" to change its curricula and facilities. The consolidated central power of the organization's management makes it difficult for TVTO to embark on quick necessary and timely decision due to the hierarchical bureaucratic structure. Also, the centralized structure could hinder effective partnership among trainers, trainees, employers and other stakeholders in the trainings. For example, trainers who are one of the most important elements in the execution of the training programs are not involved in the decision making. In actual fact, they could provide critical inputs in terms of curricula deficiencies, deteriorating standards, obsolete equipment and old-style pedagogy. Therefore, it is important to revise the existing standards because vocational training must have proper structure, content and quality and be consistent with employment needs and the job market and to adapt to the rapid technological changes. Hence, to make these changes, TVTO must work closely with industry players and training experts from local and oversea.

In addition, the data showed that some respondents were less satisfied with TVTO's trainees and the fulfilment of the job market needs. In other words, TVTO was less successful in attracting and empowering the right applicants. Therefore, TVTO has to modify the contents and teaching methods of the training program to be tailored to the applicants and industrial needs. The data also indicated that the training program in terms of the structural and organizational, managerial and administrative, financial and educational equipment and resources, education and learning processes and, most importantly, communication with the industry needs fundamental revision. In the future, the impact of technology will be a significant factor in determining a country's competitiveness. Therefore, TVTO needs a comprehensive training plan to fit human resources to workforce needs to ensure long-term economic growth.

CONCLUSION AND RECOMMENDATIONS

The aim of the study was to evaluate TVTO 18-month training program in terms of the educational standards, equipment and facilities, trainees, trainers, management plan, and job market. The complexities of the current labor market required frequent evaluation regarding the resiliency of the vocational training. In other words, the study was conducted to examine the achievements of the organization's goals by evaluating the quality of input, process and output of the TVTO training program in Isfahan. TVTO, affiliated to the Ministry of Cooperative, Labor and Social Welfare, is responsible for skills training with the objective to supply skilled human resources to the industrial sector. Based on the main findings of the study, we can conclude that TVTO training has strengths and weaknesses. In fact, several factors have influenced the internal and external efficiencies of the training program. In general, the strengths of the TVTO training program in Isfahan province include it provides skills training to the youth and the disadvantaged groups, and it has upgraded human skills in order to achieve higher efficiency, and it has established link between the education system and the job market.

The weaknesses of TVTO skills training program based on the study of the TVTO 18-month training program showed that the training program did not fully achieve its goals. In addition, there were several critical problems such as the trainees' capability, the rate of employment, the employers' satisfaction, the amount of training, and the job market needs have indicated that there were pertinent challenges in these areas. Specifically, the challenges included poor management plan, incompetency of the trainers, poor equipment and tools, low education/training standards, and the mismatch with the job market. In addition, low motivation, poor talent and lukewarm interest have also been detected among the trainees. Thus, based on the empirical evidence from the study, several suggestions to TVTO are offered. In the nutshell, TVTO needs to:

1. Improve the vision and mission, organizational goals, action plans, and strategies.
2. Evaluate the quality of the education and training standards. Some standards may be obsolete.
3. Revise the curriculum so it is in line with the contemporary technologies.
4. Upgrade the TVTO infrastructure, facilities and equipment in accordance with the industrial sector needs.
5. Revise the assessment system so that it is more authentic and conform the accreditation requirements.
6. Enhance the partnership with employers. To attract fund and budget, contracts can be signed with large and small local companies with the aim to have dual-training program.
7. Reduce the bureaucracy by decentralizing the TVTO management structure.
8. Improve the certification system so that it is recognized by international accreditation bodies.
9. Attract qualified trainees by looking into their interest, motivation, age, education level and the necessary pre-requisite knowledge and skills. Besides technical skills, employability or soft skills and empowerment should be provided to the trainees throughout their training period.
10. Attract qualified instructors. The trainers or instructors' competencies should be updated especially in using new advanced technologies.

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