Opportunities and Challenges Inherent In Technical and Vocational Schools; Comparative Analysis of Qualitative and Quantitative Evaluation from the Perspective of Heads of Schools and Employers

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ABSTRACT: *Present study is to evaluate quality and quantity of technical and vocational courses to study the present status and improve activities regarding centers' manager and employers' thoughts in Alborz province. Considering the fact that centers' manager at commence and employers at the end deal with probationers; their needs analysis and adaptation of training policies with their need is one of the important aspect of evaluation and their comments regarding students' knowledge level, acquired skill and capability in assigned tasks is important. This research has evaluated the quality and quantity of technical and vocational courses in Alborz province and girl students and graduated students success in these courses as an unofficial training system. Method of this research is qualitative and quantitative (mixed) and population for this study is technical and vocational training centers' manager and employers. Instrument of study includes a questionnaire that it is provided with Servqual model by researcher. In order to analyze the data, descriptive and inferential statistics, coding and SPSS software were used. Findings showed that the mean of physical services, validity, accountability, reassurance and empathy in girl technical and vocational training centers are in optimal level in centers' manager thought and whereas employers' thought different.*

Keywords: *Technical and vocational training- quality and quantity of training courses- centers' manager - employers*

I. INTRODUCTION

Studies show that displaying effects and actual results of technical and vocational courses, now has become a big obsessionin all technical and professional education centers. in a way that manager and employees of this organization always had been accost with this question that dose technical and professional courses has its natural effectiveness? The discussion is that how the executive organization of technical and professional can assure the effectiveness of educations onstudents and mostly executive organization hasreached to its purpose? Undoubtedly the answer to this question can be looked for in evaluating and examining the participants of course. One of the issues in evaluation and testing of technical and professional skills issuperficial and shallow testing and evaluation and lack of effective relation between conducted evaluating tests with assigned standards for professional and technical training models. Perhaps one of the reasons is the lack of attention to theories of learning (Amiri&et al 2010).

Regarding that one of the main criterion in effectiveness of technical and professional training, is itscapability in market labor training. It is clear that teaching this abilities and skills has both theoretical and practical aspect, in which they must be in accordance with mechanism and formulated plan and the benchmark test to evaluate. It is too important to perform evaluating at different time; aimthe assessment effectiveness and quality of educational plans and indicatefailures inimplementation and execution of training. Evaluation is undetectable element of education and perform the role of a bridge between learning and teaching (Fazlikhani;2013).all of technical and professional programs, are formulated and codify to affect learning procedures ofstudents, in fact the program whichcannotaffect the students learning doesn't reach to itself purpose (Ebrahimi; 1998)

II. STATEMENT OF THE PROBLEM

The first step in successful technical and professional education is providingjob referenceguidance. In one side students should know their abilities and interests and be aware of the vocational opportunities in labor market in other side and be able to adaptthemselves in trained the job to improvethemselves.This guidance requires technical and professional centers links with employers to assess their current and futures needs. If guidance and consultation perform in the organization by following the rules can be hopeful to gain the purposes both from the view of general and outside of organization and link this from view of inside organization (Aslani&et al, 2013).

Global economy differs day by day and it will determine what further national and international labor market is evaluation is one of the main elements of any system that has effect on all elements of system and one of the

most effective waysto improve the quality of educational program in execution is to determinestrength and weakness and strengthen the positive aspect and to eliminate insufficiencies to take appropriate steps. It should be noted that perform each training course hassignificant cost and this should be clarified and, managers must know the amount of effectiveness training course. Multiple Studies and researches showed that more from half of trained contents doesn't employ in the jobs; its means that the some important part of educational elements iswasted. The system of student and workforce evaluation in the technical and professional education organization has a lot of complexity. Diversity and the variety of jobs and different type of testemake this evaluation more complexand distinguished than other educational systems.An important point that makes the situation more difficult is to measure skills that is primarily difficultand more ever to difficulty it need more cost and time (vocational and technical research and development office 2003)

III. RESEARCH METHOD

The purpose of this study based on usage is descriptive–analytical. Researcher sought to describe imposedcondition. In addition to describing the current situation compare the level of expectations of heads of Schools and Employers and their understanding from the quality and quantity of provided service invocational center according to their needs.

Population
Because this study is to evaluate the quantity and quality of technical vocational, education courses in Alborz province vocational schools, allheads of Schools (25) and Employers (17) in Alborz province are population of the study

The Questioner Measurement Tool
To measure the quality and quantity of vocational training courses Servqual model was used and the questioner designed based on that model.To measure variables such guarantee,reliability,responsiveness,assurance and empathy factors as servqual and quantity variable to assess the naturalized and distributed quantity and quality of technical and vocational training, which were also examined by questioner. Supervisors and consultant specialized in this area studying the questioner determinedand conformed the validity of the content validity. Andto determine the reliability of the questioner alpha Cronbachwas used

Background
according to a studies conducted within and outside of the country regarding the subject of study, it became clear that there is no documented examination and it can be said thatresearch on evaluation basis of technical vocational center from the view of managers of the centers and employer is new subjected hasn't been addressed yet.However someresearchers have mentioned this issue indirectly and implicitlyin theirstudies.
The results of Hatamzade&et al (2012)as the internal evaluation of public organizationof technical and vocational training center in the country (with aview to achieve objective) has shown that:

- Achievingto the two main objectives of developing and improving educational performance (quantitative and qualitative) on technical and vocational training centers based on defined standards and aid to technical and vocational training centers in determining capabilities and actualization of them in the average level.
- The amount in achieving 6 other main goals, to ensure management and compliance with established standards and optimal spending of resources, to develop vocational training centers according to regional needs, to enhance the effectiveness, to attract the trust of stakeholders and help trainees in choosing valid vocational training center ,to participateand activate executive cabinet of the vocational training center for comprehensive and targeted scope, toplane and evaluate center, to improve human resource management by setting eligibility criteria for executive pillars of technical and vocational training centers, to develop center management functions are at good level of utility.
- The achievements to main objectives of vocational training center help to identify capabilities and toactualize them at desirable level.
- Training centers of the organization in some parts,including variety of methods to implement technical and vocational training are not in proper utility level. Diversity of addressed peopleincluding soldiers in barracks or training center located near the universities are not in desirable levels as well. Also one of the most important factors in unsuccessful achievement of educational goals can be assigned to educational centers lack of diversity in methods of technical and vocational training implementation, a variety of participantsand lack of quality in educational labor force.

But unlike previous researches (Shaykh al-Islami& et al; 2012) ina study entitled assessing vocational training using strategic factor analysis approach showed that technical and vocational training is lower than average level and is not in good situation regarding external factor(threats and opportunities),human resources

(trainer),balance in training space, trainingfor women, educational resources, diversity in education implementation, assessment and evaluation method of trainees, center's communication and interaction with the real working environment, have not good shape and lower than average.Professional and technical training in the province of Kurdistan with existing practice is in a defensive strategy position that requires a review and providing policies to solve the limitation and strengthen available advantages.

Nek comal& et al conducted a researchto examine the quality of services and perceived value on customer satisfaction and to this end they run a survey on 150undergraduates students at the University of Savrak in Malaysia in which through a questionnaire responded to the survey question.Result of hierarchical regression analysis revealed four important findings regarding this issue.First,the relationship between perceived value and reliability of customer satisfaction significantly correlated.Secondly,the relationship between perceived value and accountability was significantly correlated with customer satisfaction. Third the relationship between perceived value and with reliability was significantly correlated with customer satisfaction and fourth, relationship between perceived value and empathy was significantly correlated with customer satisfaction.This result confirms that the perceived value act as a mediator variable and partof organizational examples in service quality models.

Nagy(2009) used SERVQUALmodel to determine customer satisfaction with the perceived quality in the communication industry and found that reliability,empathy and quality of network have high impact on whole service and customer satisfaction

Research question
Is there any signification difference between expectations (ideal situation)and perception (current situation) regarding educational content?
Is there any signification difference between expectations (ideal situation) and perception (current situation) regarding accountability?
Is there any signification difference between expectations (ideal situation) and perception (current situation) regarding guarantee?
Is there any signification difference between expectations (ideal situation) and perception (current situation) regarding empathy?
Is there any signification difference between expectations (ideal situation) and perception (current situation) regarding assurance?
Is there any signification difference between expectations (ideal situation) and perception (current situation) regarding quantity?

Single sample T-test for Heads of Schools and Employers:
Since the Likert scale was used to answer the questionnaire,it can be presented in form of numbers so that number1 corresponding option to too low, number2 corresponding option to low, number 3corresponding option to average, number 4 corresponding option to a lot, number 5corresponding option to too high.Corresponding number 3 considered as the average Likert spectrum and sample T-test results will be compared with number three. If the obtained number is above from the test, we conclude that variables (aspect) are high and positive. But if the target number is less than the test; it is negative and undesirable.
The number of for heads of schools and employers is 42.T-test performed for each aspectsand it is described below.
The following table is derived using SPSSsoftware:
Single T-test for heads of schools

	T	Degree of freedom	Two-tailed significance level	The difference between	Lower line	Upper line
Empathy	5.62	6	001.	3.85	1.61	4.10
assurance	6.29	6	001.	3.28	2.009	4.56
Accountability	6.87	6	000.	3.00	1.93	4.06
Reliability	6.48	6	000.	3.14	2.01	4.26
Educational content	7.42	6	000.	3.57	2.39	4.74
quantity	6.76	6	001.	3.51	2.27	4.86

1. Empathy
According to the above table the mean difference (MD) is 3.85. So empathy is above average and desirable, also by 95% assurance and degree of freedom 6 it can be said thatheads of schools perception level is higher than of moderate expectation.

2. Assurance
According to the above table the mean difference (MD) is 3.28. So assurance is above average and desirable, also by 95% assurance and up and down limitations it can be said that heads of schools perception level is higher than of moderate expectation.

3. Accountability
According to the above table obtained mean difference (MD) is 3. Therefore, the assurance perception is equal to average. regarding the obtained number of T- test result it can be observed that the average perceptions is equal to the average number by heads of schools and employer considering accountability. Therefore, 95% assurance and degree of freedom 6 heads of schools expectation is equal to average perception.

4. Reliability
According to the above table the mean difference (MD) is 3.14.Therefore,the reliability is above the average and evaluated as desirable.Also, 95% assurance and observance of the upper and lower limits and 6DOF it can be claimed that their perception of the average is more than moderate expectation.

5. Educational content
According to the above table the mean difference (MD) is 3.57. Therefore, the Educational content is above the average and evaluated as desirable. Also, 95% assurance and observance of the upper and lower limits and 6 DOF it can be claimed that their perception of the average is more than moderate expectation.

6. Quantity
According to the above table the mean difference (MD) is 3.51. Therefore, the Quantity is above the average and evaluated as desirable. Also, 95% assurance and observance of the upper and lower limits and results it can be claimed that their perception of the average is more than moderate expectation.

Single T-test for employers

	t	Degree of freedom	Two significant level domain	The difference between	Lower limits	Upper limit
Empathy	7.60	9	000	00.3	2.10	3.89
Guarantee	7.57	9	000	3.20	2.74	3.85
Accountability	7.66	9	000	2.90	2.04	3.75
Reliability	7.85	9	000	3.004	2.10	3.89
Educational content	6.24	9	000	2.87	2.25	3.87
quantity	6.87	9	000	2.98	2.27	3.36

1. Empathy
According to the table above is obtained mean difference (MD) is 3.00. Therefore, empathy average is equal with average. By 95% assurance and 9 DOF it can be observed that the average expectation of employers is equal with moderate perception.

2. Assurance
According to the above table the mean difference (MD) is 3.2. Therefore, the assurance is above the average and evaluated as desirable. So by considering observations and 95% assurance and observance of the upper and lower limits it can be claimed that employer's perception average is more than moderate expectation.

3. Accountability
According to the above table themean difference (MD) is 2.9.So the Accountability aspect is lower than the average and evaluated as undesirable.Also in the 95%confidence level and degree of freedom 9 and the upper and lower limits, it can be claimed that the perception of employer of Accountability is higher than moderate expectation.

4. Reliability
Accordingto the above table the mean difference(MD) is obtained 3.004.Therefore, the reliability is above the average and is desirable. Aldo by observance of the upper and lower limits and 95% confidence level and degree of freedom 9 it can be claimed that employers perception of the reliability is higher the average perception.

5. Educational content
According to the above table the mean difference (MD) is obtained 2.87.So Educational content is lower than the average and it is undesirable.

6. Quantity
According to the above table the mean difference (MD) is obtained 2.98.Therefore the quantity is lower than the average and undesirable. According to the above results and a confidence level of 95%and observance of upper and lower limits and degree of freedom 9 it can be claimed average of perception is of lower than expectation.
Test of independence for heads of centers and employers
The independence test for empathy.

variable	Size big (heads of)	coefficient status	Size sig(employers)	coefficient status
Empathy and guarantee	.45	Dependent	.544	Independent
Empathy and accountability	.38	Dependent	.415	Dependent
Empathy and reliability	.47	Dependent	.599	Independent
Empathy and educational content	.44	Dependent	.458	Dependent
Empathy and quantity	.45	Dependent	.43	Dependent

Independence test was performed for the heads of schools and employers and following result are obtained. For Empathy and other variable(variable empathy paired with other variables) in heads of schools group the results show that empathy with all variables are lower than 0.5. But in the group of employers,educational content, quantity and accountability due to the low rate of empathy 0.5 with chi-square are coefficient but they are independent with assurance and reliability.

2. Assurance
The independence test for assurance

Variable	Size sig(heads of schools)	coefficient status	Size (employer)	coefficient status
Assurance and accountability	.42	Dependent	.42	Dependent
Assurance and reliability	.43	Dependent	.43	Dependent
Assurance and educational content	.42	Dependent	.42	Dependent
Guarantee and quality	.47	Dependent	.47	Dependent

According to the above table variables,we find out that assuranceis coefficient withaccountability, reliability,educational content and quantity in both groups.

3. Accountability
The independence test for Accountability

Variable	Size (heads of schools)	coefficient status	Size(employer)	coefficient status
Accountability and credibility	.41	Dependent	.67	Independent
Accountability and educational content	.35	Dependent	.41	Dependent
Accountability and quantity	.74	Independent	.69	Independent

But in term of accountability for the both group,this variable is not coefficient with quantity and act independently.But it is coefficient with validity and educational content variable and hasdependent relationship.But in group of employers respecting to the above table and explanations, accountabilityis independent from reliability.

4. Reliability
The independent test for Reliability

Variable	Size(head)	coefficient status	Size(employer)	coefficient status
Reliability and educational content	.527	Independent	.48	Dependent
Reliability and quantity	.622	Independent	.522	Independent

Reliability is one of the variables for heads of schools group, which is independent from education content and quantity variable; because the size of variable is greater than .5 in the Pearsonchi–square statics. According to the above table it is observed that in the group of employers' education content, validity and reliability are dependent but regarding quantity and reliabilityindependent.

5. Educational content
The independent test for Educational content

Variable	Size (head)	coefficient status	Size(employers)	coefficient status
Educational content and quantity	.687	Independent	.754	Independent

According to above table,the variable of educational content act independently from quantity because the amount of chi-square is much higher than 0.5.
Research question answers
The results of the questionnaire presented, and based on that research questions were answered. The result set can be discussed the following results.
Is there any significant difference between perception and expectation in empathy?
To answer this question the result of single sample T- test for the given groupsare reviewed.
Each group attitudes to empathy variable results

Row	Factor	Heads	Employer
1	Sympathy	High	Average
2	Assurance	High	High
3	Answer	Average	Low
4	Reliability	High	Average
5	Educational content	High	High
6	Quantity	High	Low

The above table is based on above provided tables statistical analyzes. Based on Likert scale number 3 was considered as expectations option and statistical analysis of perceptions obtained based on that. The expectations and perceptions of heads of schools in 95% are different in empathy and perception of them is higher than their expectations. In line with this research Azimi(2005) concluded that empathy and psychological atmospherehigh among heads of schools.
But the expectation and perception of empathy to 95%employers has not significant differentand their perception and expectation is equal to each other. In this regard, the result is not in line with Ebrahimi(2010)and Acaba(2006) studies; because both studies evaluated employers' empathy low. The reason for this difference is the different attitude in societies toward this aspect. In another research by KhagehShokohi(2005), there was no significant difference between perception and expectation in this aspect, which is in line with this research.
The heads of centers assessed empathy in theirinstitute high. In fact the heads of technical and professional center try to honor students as one of the important elements of function to have satisfied and motivatedstudent. To improve functional quality of education center are required to help and listen tostudents in performing all of plan, critics and pay attention to them as main servitors.
Is there any significant difference between perception and expectation in assurance?
Regarding assurance respect to information obtained and results are listed in the above table. The perceptions of head of schools in assurance are higher than their expectations and the difference between perception and

expectations 95% approved. From the perspective of employers in assurance 95% significant difference exists between expectations and perceptions.

The questions that measure the assurance of the study are centered on subject of knowledge and mastery.

The main point is employers' opinions about amount of assurance. In fact managers have relationship with student and students are evaluating in the natural circuity. The perception of managersare higher than expectations in the assuranceaspect so can it can be claimed that managers have satisfaction from amount of knowledge and mastery of students.

The result of this research is in line with Ardeshiri&Karimi (2004), Haidar & Mosavi (2009), Shahabuddin Abdollahi (2011) and Jahangiri & Vasegh (2012).

Jahangiri & Vasegh (1391)in an article reviewedthe quality oflearningand teaching process of in the technical and professional educations to examination the amount of learning and vocation and mastery of students which is in line with this study. According to the results manager found that mastery of students trained in vocational schoolsis higher than rest of worker and manager are satisfied from mastery, skills, and in their view trained students have knowledge and skill to use their knowledge in operations.

Is there significant difference between perception and expectation in accountability?

From the view of heads of schools there isn't any signification difference between expectation and perception but in the view of employer it is vice versa and perception is lower than expectation. The accountability has allusion to amount of education for student and amount of feeling responsibility.According to employers,there isn't enough amount of education regarding technical instrument and students' skill isn't conformedto employers need.

Zain Abadi (2007) concluded that employers aren't satisfied with the status of trainees.

According to result in this research and anterior researches the ability of student it has been weak to use instruments.The technical and professional centers must be equipped with the latest technology that is related to industry and perform a location that student can use the instrument. Therefore, attempting to close the per capita rate centers within the facilities for trainees by supporting standards, to refresh them and provide optimal conditions facilitators and are available in the center facilities, can in effective in enhancing ability of graduates.

Are there significant difference between perception and expectation in term of reliability?

With 95% confidence level expectations and perceptions of heads of schools is different and perception average is higher than average expectations. But at 95% confidence level there is no significant difference between perceptual and expectations of employers for the reliability.

Researchesperformedin this area have mentioned the importance of this term in assessing quality ofeducation.

Are there significant difference between perception andexpectation in the educational content?

Another aspect is educational content and in this variable difference between the average of perception and expectation with 95% confidence level exists, but the amount of perception is higher than expectation.For the heads of school in the 95% confidence level the amount of perception and expectation is different and the amount of perception is higher than the average of expectation and expectation is lower than perception for employers.

The questions related to the educational content are related to days of training, using various tools such as video projectors, computers and other audio-visual tools,the appropriateness oftraining time.Heads of schools and employers also believe that the educational content is desirable. In other word the average perception of the heads schools and employers are higher than expectation.

Is there signification difference between perception and expectation in the quantity?

The quantity variable the average rate for employers at a significance level of 5% has been different from their perceptions, and their perceptions are lower than expectations. But the average perception of heads of schools different was higher than their expectations.

Questions related to the quantity centered upon the physical facilities and appropriate training courses and disciplines. So that the questions related to the educational space, cooling and heating facilities, update working tools, suitability and availability of tools and items like this.

Interesting point is that heads of schools assessed their facilities in proper level; regarding analysis and results heads of schools perceptions is higher than their expectations and they are satisfied with their equipment.

The result of this study is not in line with Razi(1994)kaffash(1997)Rabie&Salehi (2007); considering that the facility and physical space in the technical and professional space is in suitable level.One of the reasons that have been caused this difference is antithetic community of samples in these studiesand different centersso different conditionswillcause different results.

The result of questioner analysis and interview indicate causes condition for dissatisfaction in the quantity of educational period. According to them limited capacity of center due to small number of center and low diversity of fields of education in this centers,and lack of training instrument and adoption of them in some of disciplines, lack of expert teachers in relevant field that can provide a condition to improve technical knowledge, keep update teachers through continual contribution in the workingperiod training, lack of training

courses tailored to the needs of region due to lack of budget allocation in relation to job creation workshops. In order to make efficient use of existing capacities in technical and vocational training, learn techniques and skills to trainees in line with the comparative advantages that can be achieved by allocating funds and the creation of regional training workshops to improve the quality.

IV.   DISCUSSION AND CONCLUSION

Today's world with developmentin technology a big variation caused bythat; forced countries to alter their incumbent economy approach to knowledge based approach and because of this the three pillars of innovation, technology and competence in the development and progress has got considerable importance.Improving competencies and work force skills and their learning capabilities through lifetime learning and specially through expanding technical and vocational training are the most important tools in reaching to these three aims. Regarding this purpose and lots of students train in these centers and student by passing their period and learning the skill get out of this system and enter to production cycle and labor market every year. Studies and research of multiple express that more than half educational content never does applied for a job and this means that some of important sources of training are wasted.

This research run from the view of heads of schools and employers with the purpose to examine the quality and quantityoftraining courses period in Alborz province,to provide an evidence that the period of technical training in Alborz centers are in the undesirable level in quantity. So considering the results of research and critical location of training centers, eliminationof these limitation and executing reformations in these centers are the most important thing to do. Evaluation of the quantity and quality of training courses and consequently determining existing quantity and quality is basic and logical step to understand the situation, decisions making and executing necessary reforms. By running a survey and needs assessment of employers, more practical content and targeted educational content can be develop to prevent waste of resources and opportunities. Regarding this we can form educational courses based on employers and market needs and for students. To expand this research to other cities and counties as result of lack of statically population is not possible but can make a big way to apprise the need of labor market and improvement and ascendency organizational country

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