



FURTHER EVALUATION OF OJT TRAINING QUALITY FACTORS ON TVET STUDENTS' SATISFACTION IN OMAN

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Abstract:

The current demand in Oman's labour market is to have a young skill full Omani who is capable to cope with the technical challenges in the industry, as work competence is found to be deficient. The quality of the work depends on the provision of On the Job Training (OJT) programme which is overseen by MoMP. As a result, there is a need for further investigation to determine the OJT quality factors that are associated with Trainer Quality, Effective Assessment, Clear Expectation, Learning Stimulation, Competence Development, Training Relevance, Training Resources, Effective support and Active Learning on students' satisfaction. The study has embraced the quantitative and positivists method of research, using a stratified random sample to gauge 8 TVET institutes with a total sample of 317 participants. Additionally, the reliability of the test depends on Alpha Cronbach's scale, and it scored acceptable levels i.e., 0.772 to 0.809. The survey instrument of Coates (2009) was adopted and the literature review was done to support the research conceptual frame. The support theories were based on SERVQUAL, TQM and Kirkpatrick four level of training evaluation model. The study survey used five Likert scales to analyze the data. The evaluation of OJT quality factors on TVET students' satisfaction was measured, P value <0.01 and found statistically significant. The sample adequacy was measured by using KMO and Bartlett's test and scored 0.833 within the threshold. Also, the research used three measurements of Goodness of fit and met the required threshold. Nonetheless, the hypothesis results showed an overall of 70% of hypotheses have a significant effect on TVET students' satisfaction. Finally, the research contributes to developing work skills to meet students' satisfaction.

Keywords: On the Job Training (OJT), quality, Technical Vocational Education and Training, TVET work skills, students' satisfaction

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1. Introduction

The main objective of this paper is to evaluate On-the-Job Training (OJT) quality approach to TVET students' satisfaction. The participants are coming from the Technical Vocational Education and Training (TVET) colleges in several regions in Oman and the Ministry of Manpower and Human Resources (MoMP) is responsible for these colleges to facilitate training.

Oman is one of the Arab countries in the Middle East dedicated to providing a TVET education and has only started in 1970 with only three official primary schools with 900 students; increased to 1,125 public schools with a population total of 579,024 students, while the private schools are 636 and catering to 105,680 students. ([UNESCO, 1972](#); [Al Najar, 2016](#); [Al-Mujaini, 2018](#); Al Barwani & Azam, 2023). The quality of learning is considered vigorous and by supporting TVET institutes, the current changes in the movement of workforces around the world are advisable to consider technical studies ([UNESCO 2017](#); [Coates, 2018](#)). Nevertheless, [Mohammed \(2020\)](#) quoted that TVET plays a vital role in the education perspective and it is for viable development in the 21st century. The Third International Congress on TVET (2012) recognized the essential of Building Skills for Work and Life, apparently, in the absence of quality in education and skills improvement in the middle east region led to decline the opportunities of employment in the labour market ([Maclean, 2017](#); [UN-ESCWA, 2020](#), [Oman observer, 2021](#); Al Barwani & Azam, 2023). Though, the Technical and Education training programmes in the Gulf countries show poor output in graduate unemployment and this present real challenges to the regional governments ([Belwal et al., 2015](#); [Belwal et al., 2017](#); [UN-ESCWA, 2020](#); Al Barwani & Azam, 2023). As a result, the quality of regional education systems was degraded, and insufficient investment to meet new desires that will provide suitable training programmes to young graduates (Gallaup, 2009; [Barnett, 2015](#); [UN-ESCWA, 2020](#); [Schnitzler, 2021](#); Al Barwani & Azam, 2023). Henceforth, the gap between the needs and wants of the Oman private sectors and training facilitators is compounded by lack of TVET system development ([Al Kindi, 2007](#); [Belwal et al., 2015](#); [Belwal et al., 2017](#); [UN-ESCWA, 2020](#); Pirzada, 2022; Al Barwani & Azam, 2023). Even though the infrastructure and facilities are appealed to be associated with most of the developed nations claim, thus, a professional approach to utilise the resources is lacking and hence the learning engagement ([Shrestha, 2021](#); Pirzada, 2022; Al Barwani & Azam, 2023). Moreover, quality enhancement in TVET should be regarded as a higher priority for the future improvement of all sectors in Oman.

The facilities and internship training of TVET students are governed by Ministry of Labour and Manpower. The MoMP ensures that TVET students are performing On-the-Job-Training (OJT) and arranges them for employment, as part of TVET in Oman objectives ([Oman, 2021](#); [UN-ESCWA, 2020](#); Al Barwani & Azam, 2023). Despite, all effort done by the government of Oman and Higher Education Institutional (HEI) to enhance the quality of education in Oman, the HEIs have been criticized for turning out graduates with low competence skills and knowledge ([UN-ESCWA, 2020](#); [Al-Azri et al., 2021](#); Al

Barwani & Azam, 2023). Additionally, the HEIs resources are not up to date to accomplish the main objectives ([Al Mamari, 2020](#); Al Barwani & Azam, 2023). Henceforth, the indication of the quality of education, training condition (or environment) and learner's engagement in both TVET and HEIs are not provided efficiently (Al Hinai *et al.*, 2021). Therefore, there is an opportunity to explore more to evaluate these OJT training quality factors in the subject area of work readiness, training condition, learning engagement and trainer quality.

2. Literature Review

This research is based on different theoretical backgrounds and linked to the current development in related to service quality. In addition, the research highlighted some of the classic theories such as Service Quality (SERVQUAL), Total Quality Management (TQM) and Kirkpatrick training evaluation model.

Parasuraman *et al.*, (1985) offer a SERVQUAL model of ten dimensions i.e., Reliability, Responsiveness, Competence, Access, Communication, Credibility, Security, Understanding and Tangible. Several researches have been conducted to find out if satisfaction is directly linked to service quality or vice versa. According to Athiyaman (1997), there is a strong relationship between customer satisfaction and service quality. He noted that all service encounters must be controlled to elevate customer satisfaction. Similarly, the results of the research model done by Cronin and Taylor (1992) indicated that perceived service quality, in fact, leads to satisfaction as suggested by Parasuraman *et al.* (1985, 1988). Similarly, in the higher education literature indicates that learner's comprehend service quality will lead to student satisfaction (Guolla, 1999; Ahmed *et al.*, 2015; Alam *et al.*, 2021). Thus, there is a strong agreement among the researchers with respect to the relationship between service quality and customer satisfaction.

The TQM is well known as a management philosophy that enhances customer satisfaction and organizational performance; in this regard, all members of an organization are totally engaged to advance processes, products and services along with its general values ([Deming, 1986](#); as cited in [Sfakianaki *et al.*, 2021](#)). However, the success of TQM in the industry has attracted academics and practitioners to study the model and find a possible way to link the model to educational organisations ([Al-Marri *et al.*, 2007](#); [Bouranta *et al.*, 2019](#); [Singh, 2021](#); Yusuf, 2023). According to Evans and Lindsay (2010), TQM in education is basically focusing on customer satisfaction through the continuous improvement of products (or services). Furthermore, Olaguer and Bertillo (2023) both see that TQM approach in education associates achievement of high quality involves all parts of the educational institute for educational excellence, and it organizes and balances instruction for all learners accordingly. Nevertheless, quality assurance is more involved in the process, which Tuck (2007) considered as process and procedures to ensure qualifications, assessment and course delivery to accomplish the required standards. Furthermore, a good example could be given here is that Sakthivel *et al.*, (2005) developed a 5-C TQM Model of Academic Excellence which is derived from Deming TQM model.

Therefore, this research has taken the footsteps of the researchers who embraced the TQM in approach to education principles.

2.1 OJT Training Quality Factors

The paper illustrates different models and theories that applied to evaluate OJT training quality on TVET students' satisfaction. In addition, the models and theories that have been studied here have helped to develop the research framework. For instance, the TQM model is well recognised by the industry organisation and well established, however, this research has considered the way forward to embrace TQM model in different perspective i.e., Sakthivel *et al.*, (2005) a 5-C TQM model of Academic Excellence. Basically, the 5-C TQM model provides a relationship between the five TQM variables to be precise Commitment of Top Management, Course Delivery, Campus Facilities, Courtesy, Customer Feedback and Improvement and students' satisfaction of academic performance (Hornstein, 2017). Likewise, the Coates (2009) AQFT quality indicators which is consisted of ten dimensions namely, Trainer Quality, Effective Assessment, Clear Expectation, Learning Stimulation, Competence Development, Training Relevance, Training Resources, Effective Support, Active Learning and Students' Satisfaction. The Coates (2009) AQFT quality indicator was formed for the purpose of continuous improvement, as part of quality assurance in Australia. In addition, the research has studied the service quality (SERVQUAL) model of Parasuraman *et al.* (1985) and was utilised to support the research. Lastly, this research has reviewed the Kirkpatrick four levels model for effective evaluation of training. The model is well known for analysing and evaluating the results of training and education programmes (Katherine, 2017; Sutadji *et al.*, 2022). This model was developed by Dr Kirkpatrick in the 1950's and is based on four levels namely reaction, learning, behaviour and results. Since the purpose of this research is to evaluate the OJT training quality towards TVET students' satisfaction, it was necessary for the author to consider the above-mentioned models as found to be relevant to the study.

2.1.1 Trainer Quality Factor

According to Ajithkumar (2016), the trainer has a significant role in assisting and providing guidance in the workplace. Similarly, Coates (2009) quoted that trainer quality is about the competency and effectiveness of teachers and trainers in the organisation to provide assistance to the learners. Nevertheless, Frontczak (1998) proposed "Trainers" to have a duty to play as role models of learning; drive the trainees in creating better choices; determine both cognitive and behavioral communication, and be able to give constructive criticism.

2.1.2 Clear Expectation Factor

Learners will always feel satisfied if their expectations are clearly fulfilled and are being placed in the right environment where they could accomplish (Ming *et al.*, 2016),

Similarly, Coates (2009) and Parasuraman *et al.* (1985) both see that the clear expectation is the clarity of the training program and approaches to learners' satisfaction.

2.1.3 Effective Assessment Factor

According to Coates (2019), effective assessment is an appropriateness of evaluation in providing learners' satisfaction. However, Mukhtar and Ahmed (2015) mentioned that the role of assessment is to improve students' learning capability and teachers' providing teaching to ensure that students managed to reach their individual prospective. Similarly, Frontczak, (1998) and Grosch (2017) both see that the continuous assessment of the training program and assessment of experiential ways and means are having common factors relating to trainees. Lastly, it is vital to evaluate the training programme effectively and to ensure that the training is done according to learners' satisfaction (Kirkpatrick, 2022).

2.1.4 Learning Stimulation Factor

According to Habib and Watanabe (2021), learning stimulation is a learning process that learner can enhance experience and achieve skills through an effective training environment. Similarly, Coates (2009) perceives that learning stimulation ranges to which training stimulate people to achieve learning and this would apply to the trainee who is receiving training in the working environment. As well, the human brain may rewire by itself and reaction to environmental stimuli and learning (Baines, 2008; Castrén, 2014; Colomer, 2021).

2.1.5 Competence Development Factor

According to Siddique *et al.* (2022), competence is the condition of being adequately qualified, particularly in knowledge, skills, and proficiency an individual takes to their workplace. However, Omar (2021) highlighted the significance of competence development and he urged that training programme should be done well and systematically planned by the learning organization for satisfying learners. Similarly, Coates (2009) stated that competence development is basically an assessment of competencies that lead to being developed in the training condition.

2.1.6 Training Resources Factor

Kirkpatrick (2012) emphasizes in choosing a suitable facility for trainees as the success of the training program and this is agreed by many researchers. For instant, Coates (2009) cited that training resources are all about quality and should be fit for learning resources to satisfy learners. Similarly, Parasuraman (1985) affirms that tangible service, in his Conceptual Model of Service Quality, is considered to be a physical component, and the study has taken on board the importance of the training resources as one of the OJT quality factors.

2.1.7 Training Relevancy Factor

Kirkpatrick (2012) has linked success of training program in work placement is totally depending on learner's satisfaction. Similarly, Coates (2009) went and defined training relevance as the relevance of the training for job and accepted by trainee. Lastly, appropriateness of training is vital key for trainees to achieve the required skills and knowledge which are related to their field (Siddique *et al.*, 2022).

2.1.8 Effective Support Factor

According to Martirosyan (2015), learner effective support in the learning environment plays vigorous role in students' success in educational organisations. In addition, several researches agreed on the relationship between student's effective support whether facilities or other components is relatively great to student's satisfaction (Arambewela *et al.*, 2005; Mai, 2005; Mavondo *et al.*, 2004; Petruzzellis *et al.*, 2006; Htang, 2021). Correspondingly, Coates (2009) cited that effective support is all about delivering of effective support to learners.

2.1.9 Active Learning Factor

Accordingly, for Coates (2009), active learning is part of the 'learner engagement' quality indicator meant to determine how well learners are engaged in activities that will result to higher quality skills. However, Kahu and Nelson (2018) mentioned that the learners' experience is not affected by their inherent characteristics or background but by the society, its culture, and practices. Also, the learner is no longer as an inactive receptacle for knowledge and instead as an active member in the development of knowledge (Nissim *et al.*, 2016).

2.2 Students' Satisfaction Factor

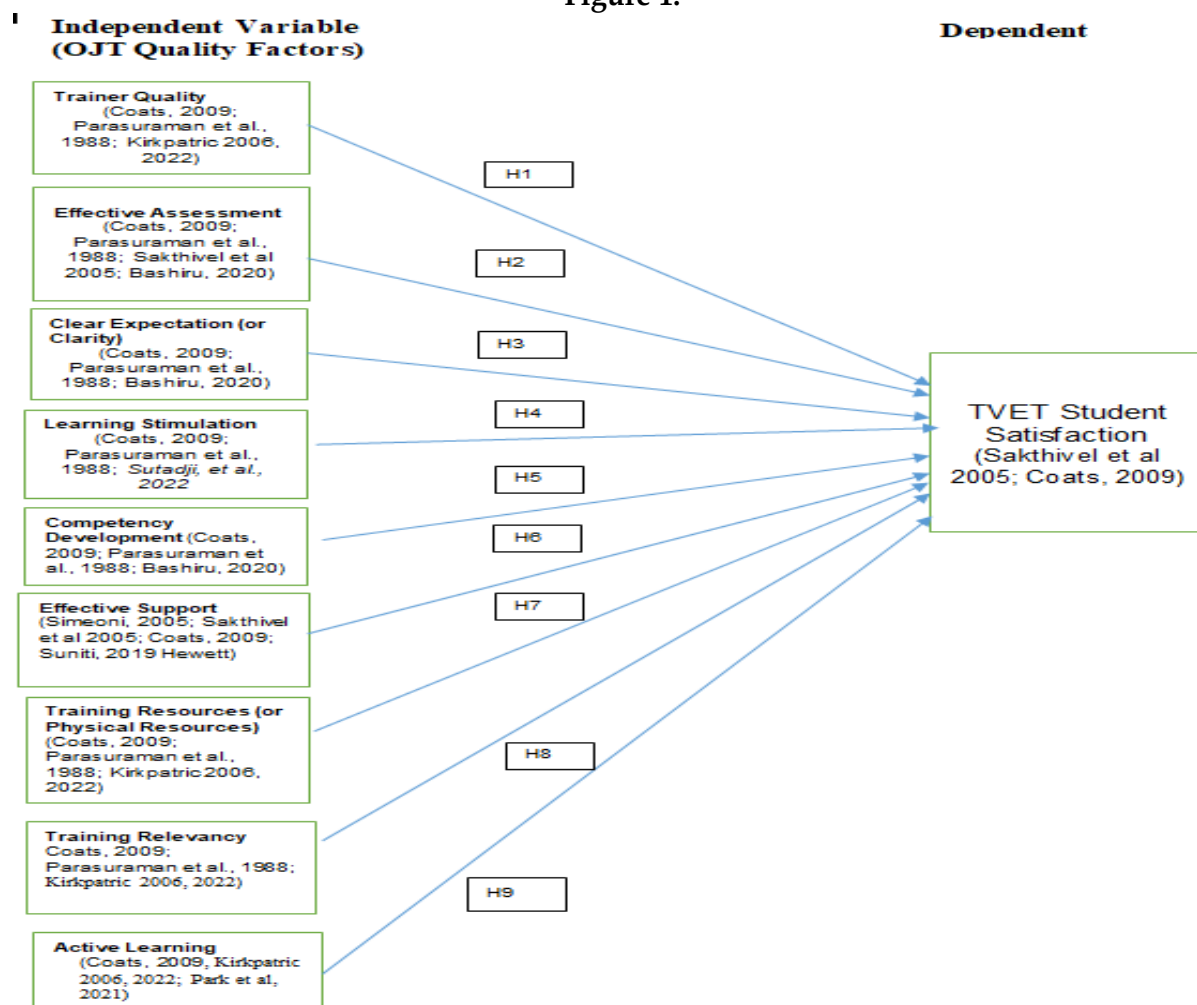
According to Sami (2015), satisfaction is about customers' meets and experiences with a particular establishment. As Deming (1982) quoted, most people form their emotional feelings based on what they see, or experience how they feel. However, Devinder and Datta (2003) saw that services are given to people by people, and the moments of fact can form or deform an institute's reputation. In general, learner satisfaction is basically a provision of suitable training and learning by the establishment (Coates, 2009). Finally, by delivering high-quality services to the students, it is up to organisation to ensure the achievement of every aspect of the student's interaction with all of their service provisions.

2.3 Conceptual Framework

The conceptual framework of the research is based on a theoretical approach and literature review. The paper provides the conceptual framework to assist in evaluating the OJT Training Quality factors toward Students' Satisfaction, as shown in Figure 1. In addition, the research hypotheses are containing nine hypotheses and one dependent variable as detailed below:

- H1:** Trainer Quality has a positive impact on Students' Satisfaction.
- H2:** Effective Assessment has a positive impact on Students' Satisfaction.
- H3:** Clear Expectation has a positive impact on Students' Satisfaction.
- H4:** Learning Stimulation has positive impact on Students' Satisfaction.
- H5:** Competence Development has a positive impact on Students' Satisfaction.
- H6:** Training Resources has a positive impact on Students' Satisfaction.
- H7:** Training Relevancy has a positive impact on Students' Satisfaction.
- H8:** Effective Support has positive impact on Students' Satisfaction.
- H9:** Active learning has positive impact on Students' Satisfaction.

Figure 1:



3. Methods

3.1 Study Design

Coates (2009) AQFT survey instrument was adopted in the research in order to evaluate the OJT training quality on TVET Students' Satisfaction in Oman. The TVET colleges participated in the study are coming from several regions in Oman. A total of eight colleges were gathered and provided a research questionnaire. There are six colleges

from rural and these are i) Salalah College of Technology is from the Dhofar region, ii) Shinas College of Technology is located in Al Batnah region, iii) Musanah College of Technology is located in Al Batinah region, iv), Ibri College of Technology is sited in Al Dhahira region, v) Sur College of Technology is situated Al Sharqiya region, vi) and Nizwa College of Technology is located in Al Dakhiliyah. The remaining two colleges are from urban area, these are i) Higher College of Technology and is located in Al Khuwair and finally ii) The Royal Guard of Oman Technical College is situated in Seeb.

The researcher was granted by authorities in Oman to carry out the research and an appointed coordinator from the ministry assisted to distribute the questionnaire to the TVET students. A sample of 317 out of 400 was received in which 117 questionnaires from urban area and 200 from rural area. The students were selected by random sampling technique.

3.2 Questionnaire Design

The research has adopted a questionnaire from Coates (2009) and a five-point Likert scale questionnaire was used to measure the effect of the OJT training quality factors. The questionnaire is divided into two sections i.e., the first section is about students' demographic profile contains age, marital status, educational level, area of institute and education sector and second section of the questionnaire is to measure the study variables.

3.3 Data Analysis

The research used a quantitative approach and data was analyzed by means of descriptive and inferential using Statistical Package for Social Sciences (SPSS) version 26.0 and AMOS a graphical package. The data from 400 students were delivered to TVET students and received 350 data. Next step, the data were screened to remove incomplete and only 317 data found to be suitable for further analysis. The research used thirty-five questions using 5-points Likert scale with the range from 1 (strongly disagreed) to 5 (strongly agreed) to assess the effect of OJT training quality factors.

3.4 Result

The research questionnaire was carried out and completed by 317 of TVET students out of an initial sample of 400 participants. The details of demographic are shown in Table 1.

Table 1: Descriptive Table of Demographic

Description	No	Percentage
Gender		
Male	231	73%
Female	85	27%
Status		
Married	86	27%
Single	231	73%
Age		

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18-20	94	30%
21-24	125	39%
24>	97	31%
Area		
Urban	140	44%
Rural	177	56%
Education		
Cert	167	53%
Diploma	142	45%
Bsc Deg	3	1%

Table 1 of demographic indicates that female percentage is 27% less than male percentage, whereas male percentage is 73% more than female percentage. This shows that male had more chances in the work-placement than female point of view. The information of marital status indicates that majority of participants are single, they present 73%, whereas married status is only presenting 27%. The age of participants ranges from 20 to 24 years old and majority of the students were under 20 and presents 41%. In addition, the age less than 24 which presents 33% and is the second largest portion. The lowest percentage of age was the age above 24 years old and it presents 26% only. The students who are studying in rural area had scored 56% and there are from six colleges, however, the remaining two colleges from urban sector are presenting 44%, and had an opportunity to accomplish work placement. Lastly, the education background of the participants is from different level of qualification and majority of the respondents are from Diploma level which presents 45% and follows with Certificate respondents which presents 53%. Those who possess BSc Degree are only presenting 1% and the rest are the same.

The below table of descriptive analysis (Table 2) illustrates the mean value and standard deviation of the study variables.

Table 2: Descriptive Analysis

Descriptive Statistics			
	Mean	Std. Deviation	N
Student Satisfaction	3.91693	0.632931	317
Trainer Quality	3.9211	0.63153	317
Effective Assessment	3.8885	0.53056	317
Clear Expectation	3.747634	0.709662	317
Learning Stimulation	4.100946	0.586692	317
Competence Development	3.762776	0.521927	317
Training Relevance	3.801262	0.648029	317
Training Resources	3.927445	0.611649	317
Effective Support	3.807571	0.718785	317
Active Learning	3.7674	0.56857	317

The table shows that the highest mean value is the Learning Stimulation and scores 4.100946, whereas the Training Resources scores 3.927445 and then followed by the

Trainer Quality scores 3.9211. In addition, the Student Satisfaction scores 3.91693 is considered to be high. Though, the Effective Assessment scores 3.8885, the Effective Support scores 3.807571 and Training Relevance scores 3.801262 are not higher than the other variables but still considered to be high scores. Nevertheless, Competence Development scores 3.762776, then Clear Expectation scores 3.747634 and the least mean value is scored by Active Learning which is 3.7674. This can be said that overall results are showing a positive indication.

Table 3 displays the research reliability analysis. According to Nunnally and Bernstein (1994) that reliability value stated less than 0.60 is known to be as poor, whereas for the range of 0.70 is considered to be acceptable value and more than 0.80 is recognized to be very good value of Cronbach's alpha. Therefore, this research is taking the mentioned recommendation for measuring the research reliability.

Table 3: Reliability Analysis

Variables	Cronbach's Alpha If Item Deleted	No of Items
Trainer Quality	0.785	4
Effective Assessment	0.776	4
Clear Expectation	0.779	3
Learning Stimulation	0.800	3
Competence Development	0.809	5
Training Relevance	0.800	3
Training Resources	0.788	3
Effective Support	0.772	3
Active Learning	0.808	4
TVET Students' Satisfactory	0.798	3
Total		35

The test of research reliability managed to achieve more than 0.70 of Cronbach's alpha and this it means that the variables are within the range of acceptance value. Though, Effective Support scored the least reliable with the Cronbach's alpha value of 0.772 and followed by Effective Assessment of 0.776 but it is still considered to be good. The Clear Expectation of 0.779, Trainer Quality of 0.785 and Training Resources of 0.788 were much higher and this is a good indication. In addition, Students' Satisfactory 0.798 is the dependent variable also scored a high Cronbach's alpha. Nevertheless, Learning Stimulation with Cronbach's alpha of 0.800, Training Relevance with Cronbach's alpha of 0.800, and Active Learning with Cronbach's alpha of 0.808 and Competence Development variable with Cronbach's alpha of 0.809. Therefore, the research reliability results of Cronbach's alpha values show that the variable for Competence Development has the strongest reliability. This means that all items under the variable of Competence Development are within the acceptable range and the test achieved the desired output.

Following the success of the reliability test, the research performed a Pearson Correlation test to determine the relationship among the research variables. Yet, the

relationship between the variables have shown strong relationship, however the variable with the same variable will result in perfect correlation 1, as shown in Table 3.

Table 4: Correlation Results

Pearson Correlation										
	Trainer Quality	Effective Assessment	Clear Expectation	Learning Stimulation	Competence Development	Training Relevance	Training Resources	Effective Support	Active Learning	TVET Student Satisfaction
Trainer Quality	1									
Effective Assessment	.417**	1								
Clear Expectation	.441**	.466**	1							
Learning Stimulation	.306**	.324**	.438**	1						
Competence Development	.281**	.256**	.178**	.142*	1					
Training Relevance	.333**	.311**	.270**	.216**	.218**	1				
Training Resources	.296**	.598**	.325**	.218**	.169**	.270**	1			
Effective Support	.492**	.505**	.493**	.365**	.256**	.310**	.439**	1		
Active Learning	.203**	.304**	.320**	.139*	.161**	.161**	.264**	.267**	1	
TVET Student Satisfaction	.265**	.368**	.340**	.165**	0.103	.278**	.317**	.392**	.227**	1

Table 4 illustrates the correlations between the students' satisfaction variable with its predictors which are highly significant and the correlation is significant at the 0.01 level (2-tailed). Nevertheless, the highest correlation coefficient was recorded .439** between Training Resources and Effective Assessment. Though, the least correlation coefficient was recorded .142* between Learning Stimulation and Competence Development. Therefore, the correlation test shows that the two factors are correlated with each other. The next step is to test a Multi-Collinearity in the model.

The research tests a Multi-Collinearity in the model prior to conducting a factor analysis test. In this test, the research is basically looking at two important measurements i.e., the variance tolerance (T) and variance inflation factor (VIF). Hence, the reading for (VIF) is supposed to read less than 10, and for (T) should not be less than 0.5 the threshold (Thompson *et al.*, 2017).

The study results of Multi-Collinearity test show that the (VIF) recorded between the ranges of 1.176 to 1.976 and the (T) is measured between the ranges of 0.506 to 0.875. Both tests are recorded within the desired range and there was no issue reported in the test as shown in Table 5.

Table 5: Collinearity Test

Factors	Collinearity Statistics	
	Tolerance	VIF
Trainer Quality	.655	1.528
Effective Assessment	.506	1.976
Clear Expectation	.595	1.682
Learning Stimulation	.765	1.307
Competence Development	.875	1.143
Training Relevance	.825	1.212
Training Resources	.608	1.643
Effective Support	.569	1.758
Active Learning	.850	1.176

The adequacy of sample was measured by using KMO and Bartlett's test and scored 0.855 i.e., meeting the threshold as shown in Table 6. The significance level scores 0.00 and this bring us to conclude that the null hypothesis no longer accepted (Heumann *et al.*, 2022). In addition, the strength of the relationship among the variables is considered strong relationship and this justifies the factor analysis. Therefore, the researcher can proceed with further progress.

Table 6: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.855
Bartlett's Test of Sphericity	Approx. Chi-Square	11168.246
	df	595
	Sig.	0.000

The research hypotheses test results are indicated in Table 7 of research regression analysis and was done through AMOS software. The final output of the hypothesis test shows that Effective Support ($cr = 5.101, p = 0.0$) and followed by Clear Expectation ($cr = 3.361, p = 0.0$) were the most significant predictor of Student Satisfaction. This was followed by the third factor which is Training Resources ($cr = 2.981, p = 0.003$). The fourth significant factor was Effective Assessment significance ($cr = 2.601, p = 0.009$) and the fifth Trainer Quality significant ($cr = 2.066, p = 0.039$). The sixth significant factor and the least was Learning Stimulation ($cr = 1.972, p = 0.049$). However, the other three factors such as, Training Relevance, Competence Development and Active Learning could not accomplish the P significant value in the hypothesis test. Hence, it can be said that about 70% of hypotheses test were accepted and only 30% were not able to achieve it, this can be concluded that the results are reasonably achieved.

Table 7: Regression Analysis

Regression Weights: (Group number 1 - Default model)						
Dependent Variable		Independent Variables	Estimate	S.E.	C.R.	P
TVET Students Satisfaction	<---	Trainer Quality	0.085	0.041	2.066	0.039
TVET Students Satisfaction	<---	Effective Assessment	0.213	0.082	2.601	0.009
TVET Students Satisfaction	<---	Clear Expectation	0.188	0.056	3.361	***
TVET Students Satisfaction	<---	Learning Stimulation	0.148	0.075	1.972	0.049
TVET Students Satisfaction	<---	Competent Development	-0.103	0.082	-1.254	0.21
TVET Students Satisfaction	<---	Training Resources	0.135	0.045	2.981	0.003
TVET Students Satisfaction	<---	Training Relevancy	0.041	0.079	0.518	0.605
TVET Students Satisfaction	<---	Effective Support	0.215	0.042	5.101	***
TVET Students Satisfaction	<---	Active Learning	0.06	0.049	1.234	0.217

Next step is to introduce the measurement of the structural model and the best approach for selecting model fit statistics to report, one should not solely report the statistics that estimate the perfect fit, though this could be attractive. However, Kline (2010) suggests reporting the chi-squared test, the root mean square error of approximation (RMSEA), and the comparative fit index (CFI). Therefore, the research model is tested to provide the final results of the research model as suggested by Kline (2010) i.e.:

i) An absolute measure of fit assumes that the ideal fitting model has a fit of zero and determines how far the model is from best fit (Hooper et al., 2008). The absolute fit is measured in Normed Chi-square i.e. $CMIN/DF, 3.22 < 5$, see Table 8.1,

Table 8.1: Absolute Fit Indices

CMIN					
Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	83	1761.48	547	0	3.22
Saturated model	630	0	0		
Independence model	35	14354.35	595	0	24.125

ii) Increment Fit is sometimes called relative fit index is analogous to R2 and so a value of zero point to have the worst possible model and a value of one shows having the finest possible (Iacobucci, 2010). The Increment fit is measured in Comparative Fit Index (CFI) i.e. $0.912 > 0.90$, see Table 8.2.

Table 8.2: Increment Fit Indices (or Relative Fit)

Baseline Comparisons					
Model	NFI	RFI	IFI	TLI	CFI
	Delta1	rho1	Delta2	rho2	
Default model	0.877	0.867	0.912	0.904	0.912
Saturated model	1		1		1
Independence model	0	0	0	0	0

iii) Root Mean Square Estimation (RMSEA) integrates the parsimony criterion and is relatively independent in terms of sample size and number of parameters and it is

measured in RMSEA i.e. $0.075 < 0.08$ (Sfakianaki, 2019; Jackson, 2001), see Table 8.3 and the outcomes are recorded to be fit for purpose.

Table 8.3: Parsimony Fit Indices

RMSEA				
Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0.075	0.071	0.079	0
Independence model	0.241	0.238	0.245	0

The model fit measurement for the study as shown above are provided by three essential readings i.e., Absolute Fit, Increment Fit and Parsimony have managed to achieve the minimum threshold of the fitness of the model. Consequently, the study results confirmed the model is fit for purpose.

4. Discussion

In this research, students from TVET colleges under MoMP in Oman were selected and the Coates (2009) AQFT quality indicator instrument was used for surveying purpose. The main reason of selecting this instrument is for trial purpose and is first time to be used in Oman for TVET survey, as far the current research indicates. The instrument was initially used for registering training organizations (RTOs) and measuring the quality of vocational education and training to support the Australian Quality Training Framework (AQTF).

The paper illustrates several theories to support the research and Parasuraman *et al.* (1985) provide a service quality (SERVQUAL) instrument to facilitate academic achievement. In addition, TQM was carefully studied and not in the field of industry but in the field of education perspective. TQM is well known in that it recognizes customer satisfaction through the continuous improvement of services which integrates employees at all levels of establishment (Mehra *et al.*, 2008; Evans & Lindsay, 2013). This research is focused on academia and Sakthivel *et al.*, (2005) recognized a TQM for the academic study i.e., 5-C TQM Model of Academic Excellence. Basically, the model provides a relationship between the five TQM variables such as Commitment of Top Management, Course Delivery, Courtesy, Customer Feedback and Improvement, Campus Facilities and students' satisfaction of academic performance (Hornstein, 2017). Hence, the research found the 5-C TQM Model in education is more suitable for this study.

The On-the-Job Training is part of the TVET curriculum which is under the authority of MoMP. The drops of work opportunities for young Omanis in the labour market is due to a lack of training quality and the challenges are apparent (Maclean, 2017; UN-ESCWA, 2020, Oman Observer, 2021). In addition, TVET students are assigned a trainer to provide them with work skills during internship and the trainer is part of the OJT training quality factors in this study which has an impact on trainee's satisfaction in both rural and urban areas in Oman. However, the workplace condition and facilities were condemned due to the fact that is not aligned to the training conditions and

accommodate trainees for obtaining the required work skills (UN-ESCWA, 2020; Al-Azri *et al.*, 2021). In terms of trainee's engagement in the process of learning and achieving the work skills accounted is not sufficient to evaluate the level of trainee's satisfaction (Al Mamari, 2020; UN-ESCWA, 2020; Al-Azri *et al.*, 2021).

The research shows that the high quality of TVET on-the-job training may well be achieved by demonstrating the relationship between training quality and trainee's satisfaction (UNESCO & ILO, 2002; UNESCO-UNEVOC, 2013). In addition, the research viewed to define whether the trainee has received equitable training or else. However, by taking learners' response (or feedback) which found to be very effective in educational establishments to assess the learners' satisfaction (Leckey & Neill, 2001). Furthermore, prior studies also discovered that trainer, effective assessment and clarity (or clear expectation) have a direct impact on learner's satisfaction (Richardson, 2005; Williams & Cappuccini-Ansfield, 2007). Also, other studies revealed that there is a strong relationship between learner's engagement and students' satisfaction (Harteis & Billet, 2008; Robertson, 1998; Abdalla 2000; Aarkrog, 2003; Umarik *et al.*, 2010; John, 2012).

Learners' engagement in an effective training condition plays an important role in generating high quality of the product (or service) which ends up to satisfy the customer, as stated by number of empirical researches (Pascarella and Terenzini 2005; Kuh, 2008).

In this paper, the author evaluates the impact of On the Job Training (OJT) Quality on Students Satisfaction. The demographic outcomes show that male category is 73% more than females in gaining competence skills and the majority of TVET participants were from the young age between 21-24 and this presents 39% and followed by age of 24> which presents 31%. In addition, the marital status shows that single-status participants are more than married status by 73%, as expected. However, the rural area participants presented 56% as the majority, whereas urban participants presented 44% only. Taking into account, the rural participants are presented from six colleges whereas urban participants are presented from two colleges. Therefore, this gives a ratio of 6:2 respectively and this can be interpreted that 9.3% of each college in the rural area had an opportunity to go for an internship and 22% percent of each two colleges in an urban area had an opportunity to join the internship. Thus, it is clear that the facilitation to deliver TVET students in acquiring work competence skills effectively is limited (UN-ESCWA, 2020; Al-Azri *et al.*, 2021).

The outcome results of the reliability test using Cronbach's alpha scale show that OJT training quality factors are above 0.7. This indicates that the scales are reliable as suggested by Nunnally and Bernstein (1994). Furthermore, the relationship between the correspondent OJT training quality factors and students' satisfaction shows a strong relationship.

The Pearson correlation test show that there is a strong relationship between the variables and the P value is statistically high significant as $P < 0.01$. In addition, the study looked at any Multi-Collinearity issue in the model and measured two measurements namely the Variance tolerance (T) and Variance Inflation Factor (VIF). However, the measurements did not exceed more than 10 the threshold and the variance tolerance

measurement were not less than 0.5. The results show that the (VIF) recorded between 1.131 to 1.746 and the (T) is scored between 0.573 to 0.884, both tests are recorded within the desired range (Thompson et al, 2017). Consequently, it can be said that there is no Collinearity issue in the model, as shown in Table 7 and the test is considered to be fine.

Lastly, the three major readings of the structural model fit i.e., i) Absolute fit which is Normed Chi-square CMIN/DF, reads $3.22 < 5$, ii) Increment Fit was measured in Comparative Fit Index (CFI) reads $0.912 > 0.90$, and iii) Parsimony and was measured in Root Mean Square Estimation (RMSEA) reads $0.075 \leq 0.08$. Thus, the structural model of this research indicates a very close fit of the model in relation to the degrees of freedom and succeeded to accomplish the fitness of the model fit test accordingly (Hair *et al.*, 2010; Albuainain *et al.*, 2021).

5. Conclusion

The research objective is to evaluate the OJT training quality factors towards TVET student's satisfaction. To achieve this objective, the research used the Coates (2009) AQFT survey instrument to examine the collected data and with the aids of two packages namely SPSS & AMOS managed to analyze the data successfully. The AQFT survey instrument is considered to be first time to be used for analyzing data for TVET students in Oman, as far the recent researches indicate.

The research obtained several theories and models such as SERVQUAL, TQM and Kirkpatrick to form the research framework. The research used a quantitative method was found to be suitable for this study; in addition, descriptive and inferential measurements were used to analyze the research data in a professional manner.

The demographic output results of the research point out that a low number of females are registered in on-the-job training and mostly at the age of 20-25 years. Most of the industries are located near the capital area (Muscat) for internship and could be a main reason of limiting the chances of rural area participants to receive on-the-job-training as appropriate.

The Pearson correlation test is used to define the relationships among the research variables and the results show that there is a strong relationship between the variables and the value of P is revealed to be statistically high. The research reliability test agreed that the study variables are meeting Cronbach's Alpha scale. As well, the study confirmed that there is no Multicollinearity issue in the model as the test measured the Variance tolerance (T) and Variance Inflation Factor (VIF) which are meeting the threshold.

The research hypothesis results show that six hypotheses are been accepted out of nine hypotheses and overall 70% of hypotheses have a significant effect on TVET students' satisfaction. The measuring model fit test confirmed that all three measurements are fully achieved.

The study limitations are that the research is done in Oman for TVET students who are only under the MoMP and the private institutes are not involved in this study. The

area of improvement is to look at the employer perspective and this will give an opportunity for other researchers to explore more. It can be determined that the OJT training quality factors have a significant impact on student satisfaction.

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Conflict of Interest Statement

The authors declare no conflicts of interest.

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FURTHER EVALUATION OF OJT TRAINING QUALITY
FACTORS ON TVET STUDENTS' SATISFACTION IN OMAN

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