



**An-Najah National University**  
**Faculty of Graduate Studies**

**TRAINEE-PERCEIVED SERVICE QUALITY  
ASSESSMENT IN WEST BANK VOCATIONAL  
TRAINING CENTERS**

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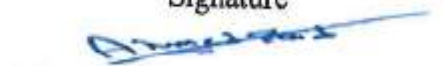
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## Dedication

إلى مصدر قوتي... إلى من علمني العطاء دون انتظار... والدي العزيز

إلى من كان دعاؤها سر نجاحي وأنارلي طريقي... أمي الحنون

إلى القلب الذي بث الإيمان في قلبي... زوجتي الغالية

إلى من أنارت حياتي بقدمها... ابنتي يافا

إلى من افتخر وأعتز بهم... إخواني الأعزاء

إلى أرواح الشهداء الأبرار، والأسرى الأحرار، والجرحى البواسل

إلى أساتذتي وأهل الفضل على الذين غمروني بالحب والتقدير والنصيحة والتوجيه والإرشاد

أقدم ثمرة جهدي عرفاناً

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## **Abstract**

Since quality of service is a key element for developing and improving the performance of institutions and companies, whether governmental or private, this study targeted the services provided by vocational training centers (VTCs) due to the great importance that the government and society attach to the vocational training sector as it is currently one of the main and quick solutions to the problem of serious unemployment in Palestine and the lack of skilled professional manpower in the Palestinian local market. This study aims to gauge the service quality offered in vocational training centers (VTCs) from trainees' perspective by using SERVQUAL model. Also, it investigates the role of service quality offered in VTCs and its impact on trainees' employability and competencies. To collect data, a questionnaire was designed. The collected data was analyzed using Excel, Smart-PLS and SPSS programs. The results of the study showed that the level of quality of services provided by the VTCs was satisfactory to the trainees, from the trainee's point of view, which was also reflected in their evaluation of developing their competencies through these services, and this explains the role of the development of the trainees' competencies as a mediator between the quality of services provided and the process of employment. Likewise, the results were positive in terms of the trainees' expectation of obtaining a job after completing the training. This study shows that there is a great variation in the quality of the services provided between the different VTCs according to geographical location. This study conveyed a picture of the reality of the services provided by VTCs. It also showed the strengths and weaknesses of this sector, which can be relied upon by decision-makers, and donors. It also recommended several steps and procedures that could constitute a qualitative addition to the vocational training sector and the services it provides, and could be adopted as a source of information to conduct new studies in this field.

**Keywords:** SERVQUAL, Vocational training, Services quality, Employment, Competency

# **Chapter One**

## **Introduction and Literature Review**

### **1.1 Chapter Overview**

This chapter includes a set of sections that aim to give an overview of the research, where the general background section gives a definition of the subject of the study, the relevant parties in the study, and the general objective for which this study was prepared, then, the knowledge gap is addressed, the essence of the study is described, and the study problem is identified and defined through the problem statement and the research questions section. It also includes the significance of research section, where aspects that prove the importance of this study is highlighted, then it moves to the objectives of research section through which the purpose of this study is explained, It also contains the research hypotheses section, through which the hypotheses that have been developed and tested in this research are listed, and through the structure of the thesis section, the map and the steps that were developed to reach the objectives of the study are identified, Finally, this chapter also contains a theoretical background, through which the theories, concepts and previous studies related to this study are addressed.

### **1.2 General Background**

Governmental service institutions face tremendous pressure from the surroundings and the local community in the necessity of keeping along with the changes and developments that have touched all aspects of life. This pressure is escalating by opening up to the world through digital and social media, so it has become imperative for these institutions to respond and translate these demands into the services they provide. Development of services means that these services should meet the perceptions of citizens and customers according to modern concepts. In other words, these services are subject to evaluation and verification of the integrity of their procedures and improvement of the level of performance and access to continuity, sustainability, and justice in providing these services. Hence, it is important to implement service quality in these institutions because of their role in developing and improving the services provided, achieving the vision, implementing policies and procedures, reaching customer satisfaction, achieving their desires, and to reach their desired goals from these services (Stasiak-Betlejewska et al., 2014; Donnelly et al., 1995).

Successive Palestinian governments adopt the quality of service and prioritize service recipients' satisfaction in many of their agendas and slogans. They place services development in most of their announced strategic plans in many sectors. However, there is a lack of studies related to the application of service quality in services provided by government agencies and the absence of dedicated sections to measure the quality of services provided in many sectors, most notably the vocational and technical training sector (Mattou & Alayasa, 2020; Hussein, 2017).

There has been increasing debate recently on the high unemployment rates among Palestinian youth, including those with postgraduate degrees, according to the Palestinian Statistics Report (PCBS, 2019). The Ministry of Labor refers through National Employment Strategy 2021-2025 (MOL, 2021) that the orientation of students is still toward traditional universities, and the Ministry of Labor's Quarterly Report 2022 indicates that about two-thirds of traditional institutes and universities graduates are unemployed despite the severe shortage of professionals working in the Palestinian labor market. Moreover, the percentage of individuals enrolled in vocational education is still small and does not exceed 10% in the West Bank and 9% in Gaza Strip (MOL, 2021; PCBS, 2019).

Vocational training is one of the most essential elements of development. It represents an integrated institutional structure through which the labor market is supplied with effective skilled labor that matches the requirements of the labor market. Vocational training is a set of programs and classifications created for those interested in learning special skills and competencies in a specific profession or craft. Upon completing these programs, the student obtains an official certificate certified by the responsible government agency that qualifies them to engage in the labor market (UNESCO, 2018).

Vocational and technical training service in Palestine is provided by several governmental agencies, as follows:

- Formal education: is provided by the Ministry of Education, which enables the student to complete a diploma or bachelor's degree in colleges and universities after passing it.
- Semi-formal and continuing education: this type is characterized by being a purely vocational path in the form of training courses with specific hours and achieving individual, professional and social competencies (UNESCO, 2018; ETF, 2020).

This study focuses on VTCs in Palestine, which are considered as a government center affiliated to the Ministry of Labor and belong to the semi-formal education as well as comprise 10 centers distributed over the West Bank and 4 centers in Gaza Strip, which are distributed over the governorates according to population centers. Only VTCs in the West Bank are considered in this study due to the difficulty of accessing the VTCs in the Gaza Strip because of the current political conditions and the blockade imposed by the Israeli occupation on Gaza Strip (MOL, 2021; Hilal, 2019).

Since workforce training is the main foundation of the development and construction process, the Ministry of Labor, through these centers, aims to train their affiliates in different trades, professions, and specializations in specialized training workshops to become skilled and qualified workers. Such specializations vary according to the geographic location of the center and the requirements of the labor market in the surrounding area. The training process in the VTCs includes an important stage, which is integrating the trainees into the labor market to facilitate their entry into it, bring them closer to the reality of the professions, deal with customers, and learn competencies and skills that they cannot learn in the VTCs, This is done in different periods according to the program to which the trainee is affiliated, trainees will later be graduated to the labor market and be given a governmental certificate certified by the Ministry of Labor according to the type of training that the trainee received, whether it was a short course or complementary course or the highest certificates offered by these centers, which is a vocational diploma, that qualifies them to practice their work in a legal manner, according to the type of training that the trainee received, whether it was a short course or complementary course or the highest certificates offered by these centers, which is a professional diploma, then s/he moves to the labor market (UNESCO, 2018; MOL, 2021).

Vocational training is one of the main solutions to the problem of unemployment and the lack of skilled professionals (Hilal, 2019; MOL, 2021). Therefore, the Palestinian Government is constantly striving to develop the vocational training sector, one of its most important programs, and has issued several influential decisions regarding vocational training due to its importance, including the decisions (PCM, 2019a; PCM, 2019b; (PCM, 2021), and a comprehensive revisions of the Technical and Vocational Education and Training Strategy were carried out in 1999 and were subsequently

developed in 2010 by specialists and were based on achieving priority quality in vocational and technical education.

The general objective of the vocational training and education strategy in Palestine is to prepare skilled workers with knowledge, competency, skill and creativity to contribute to solving unemployment problems by providing a high quality vocational training service (Helal, 2020; MOL, 2021). Therefore, the efficiency of the training outputs and the trainees is one of the important elements that must be measured in addition to the satisfaction of the students and linked to the dimensions of quality. Knowledge and reflecting the service quality dimensions on trainee's competences from the students' point of view, and what the extent of the development of their competencies is after their affiliation with VTCs for a sufficient period and the start of the training process in the labor market, which is one of the last stages before graduation. Where the competency criterion was included and focused on through a set of policies and procedures implemented by the Ministry of Labor on VTCs through new curricula that have been updated and the efficiency of working trainers has been raised to deal with the new curricula, and thus this is reflected on the competency of trainees heading to the labor market (Helal, 2020; MOL, 2021; Banat et al., 2017).

As vocational training has become one of the main pillars of new education, it is necessary to change society's view of vocational and technical education, increase its enrolment rate and improve the outputs of VTCs. So, the quality of services in these centers must be measured to know the current reality of the services provided and to determine the expectations and perceptions of students who will go to VTCs for the service that will be provided to the workers in these centers in terms of facilities, curricula, behavior, and other various services. After identifying these expectations and perceptions, the compatibility of these services with students' expectations and the analysis of the results must be measured to work on addressing weaknesses, preserving strengths, and improving and developing services and maintaining their continuity (Abdullah, 2018; Hilal, 2019; MOL, 2021; Banat et al., 2017).

Accordingly, this study aims to assess the quality of services provided by the Ministry of Labor's VTCs in the West Bank using the SERVQUAL Model, which is one of the most prominent measures for measuring the quality of services and is used to measure the gap between customer expectations and perceptions of the service provided. Thus,

increasing the efficiency of these centers by improving their service quality would result in increased demand for their services and assist in decision-making and supporting strategic planning in line with the National Operational Strategy 2021-2025 (MOL, 2021). Collectively, this will improve the education system's adaptation to the labor market's needs by accelerating the process of reforming education and technical training. Also, the studies on which the strategy relied showed a dispersion in the vocational education system and a weakness in the oversight of its outputs. This study would help standardize and improve the services of the Palestinian vocational education system.

### **1.2.1 Problem Statement and the Research Questions**

In a study prepared by the European Training Foundation in ensuring the quality of vocational education and training in Palestine, it indicated the need to take measures related to the development of the vocational education and training system, foremost of which is the development of the quality of services provided by vocational training centers affiliated to the Ministry of Labor, through the creation of unified standards to control the quality of services and specialized departments To follow up and prepare studies to ensure the quality of the outputs of these centers for the labor market (ETF, 2020), and this was also confirmed by the TORINO report (Helal, 2020) that vocational training still suffers from a significant lack of indicators, standards and studies related to the quality of services (Abdullah, 2018), and the need to address the differences in the services provided between the providers of vocational training services in Palestine, in addition to the need to prepare studies related to the evaluation of quality of services, and in a study prepared by Banat et al., (2017), it indicated the need to raise the trainees' competencies of the vocational training sector to ensure that they receive height quality training and increase their employment opportunities.

The vocational training sector in Palestine is one of the most prominent sectors affected. However, it lacks the interest and attention from the governmental agencies to measure the quality of its services offered in the VTCs (ETF, 2020). In addition, despite the government's strong and supportive orientation as a solution to unemployment adopted by the government, there is a lack of previous studies regarding the assessment of the quality of services provided by these centers in Palestine as well as the impact of

the quality of services on the employment of trainees through the development of professional competencies of trainees (Helal, 2020).

Despite the different systems of training and vocational education in different countries, there is a consensus through external studies that vocational training and education is an important factor in obtaining jobs for graduates and also reaching job stability, and there is a need for high-quality vocational training based on raising competencies (Hanushek et al., 2011; Zimmermann et al., 2013; SDC, 2016), and also at the level of local studies, an indication that high-quality vocational training is considered an important factor in raising competency and employment and a solution to the growing problem of unemployment in Palestine (Helal, 2020; Banat et al., 2017; Hilal, 2019; MOL, 2021).

Based on the issues mentioned above, there is an urgent need to conduct this study, as its results will highlight the reality of the services provided by the VTCs as perceived by the trainees, and it will be a reference for both decision-makers and managers to take appropriate decisions. Also, the results will be of great interest to the external parties supporting this sector. Which have consistently called for studies to measure the quality of services provided by these centers to the current trainees who intend to join these centers and the labor market.

The questions that this study seeks to answer can be summarized as follows:

- What is the gap between the expected and perceived levels of the quality of services provided by VTCs in the West Bank from the trainees' point of view?
- What conceptual framework based on the SERVQUAL Model is appropriate for the quality of services provided by VTCs in the West Bank?
- Are there differences in the quality of services provided by VTCs in the West Bank concerning the location of the VTC?
- What is the relationship between the VTCs Service Quality Gap, trainees' employment and competencies in Palestine?

### **1.2.2 The Significance of Research**

This study's importance lies in its results, as the results will convey the reality of the quality of services provided by the Ministry of Labor's VTCs in the West Bank and helps to find the differences between reality and perception, and linking the relationship between the quality of these services and the process of raising the competency of the trainees and qualifying them to obtain jobs, and linking them to the labor market. Thus, helping decision-makers to make appropriate decisions and work to improve the quality of services, and the process of raising the competency and employment. Moreover, helping the external supporting agencies which support the vocational training sector such as the (GIZ, BTC, UNESCO... etc.) to focus their projects on fields that work to develop the vocational training sector and improve the quality of services of VTCs and thus (ETF, 2020; European External Action Service, 2021; UNESCO, 2012), upgrading its outputs to the labor market. Furthermore, the vocational education and training sector suffers from a lack of studies related to vocational training, so this study will help researchers and provide them with references in their studies and research.

### **1.2.3 The Objectives of Research**

Following the research questions, the main goal of this study is to assess the quality of services provided by VTCs in the West Bank from the trainees' point of view based on the SERVQUAL Model, and linking its results to the process of trainees' employment by raising their competency. More specifically, the study aims at achieving the following objectives:

- To determine the gap between the expected and perceived levels of the quality of services provided by VTCs in the West Bank from the trainees' point of view.
- To determine the most influential SERVQUAL dimensions of the quality of services provided by vocational training centers in the West Bank on trainees' employment by raising their competency.
- Developing a conceptual framework based on the SERVQUAL Model appropriate for the quality of services provided by VTCs in the West Bank.
- Examining the differences in the quality of services provided by the VTCs in the West Bank according to the place of receiving the service (geographical location).
- Examining differences in the quality of services provided by VTCs in the West Bank concerning the trainee's demographic characteristics.

### 1.2.4 The Research Hypotheses

Based on the previous discussions and to answer the study questions, a set of hypotheses were developed to be tested:

H1: The VTCs Service Quality Gap has a negative effect on Employment.

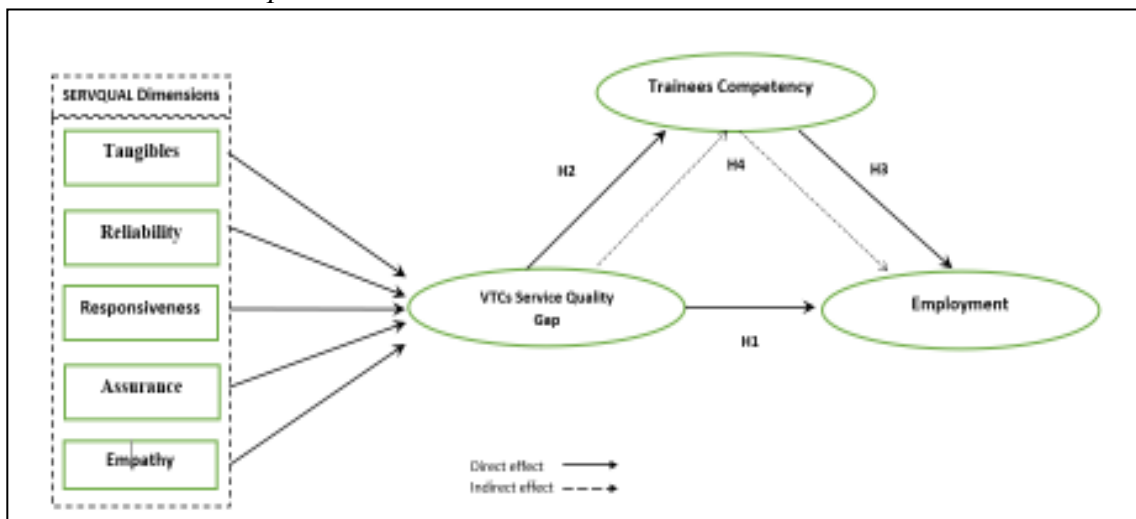
H2: The VTCs Service Quality Gap has a negative effect on Trainees Competency.

H3: Trainees Competency has a positive effect on the Employment of VTCs graduates.

H4: The Trainees Competency mediate the relationship between VTCs Service Quality Gap and Employment.

**Figure 1**

*The Research Conceptual Model*



### 1.2.5 The Structure of the Thesis

This research thesis was divided into 4 sections, each section was represented as a chapter containing subsections, as follows:

- Chapter one, Introduction and Literature Review, deals with a general background on vocational training in Palestine and the quality of services that are provided and its relationship in general with competency and employment, this chapter then included a definition and a description of the problem for which this study was prepared, then the justifications of the study, moving on to the objectives, leading to the questions and hypotheses of the study, and concluded with a literature review on vocational training in Palestine and abroad, as well as the literature related to service quality,

SERVQUAL Model, trainee's competency, and employment, and the relationships between them were also discussed.

- Chapter Two (Methodology), this chapter deals with a detailed explanation of research types and research approaches and links them to the methodology that was followed in selecting the type and methodology of this study and clarifying its sequence through the methodology flow chart, then moved on to the methods of determining the appropriate means for data collecting for this study, how to determine the population size, and the appropriate methods of analysis and examination to analysis the data of this study.
- Chapter Three, Data analysis and results, this chapter includes details of the statistical methods and programs that were used in this study, in addition to a full breakdown of the process of analyzing the results, testing the study model, checking and comparing the results with the standards used to verify the reliability and credibility of the models and testing the hypotheses that were previously developed.
- Chapter four, Discussion, Conclusion and Recommendations, where this chapter includes comparisons and interpretation of the results obtained and linking them to previous studies, reports and research and how to benefit from these results in the current period or through the study that will be done in the future and summarize what was concluded from this study, in addition to clarifying the limitations encountered in this study.

### **1.3 Literature Review**

#### **1.3.1 Vocational Training**

Many studies have highlighted the role and importance of vocational training and the implications of the development of this important sector for society and the state in general. More specifically, Clarke & Winch, (2007) indicated that vocational training plays a crucial role in the process of equipping and preparing adults for their accessing to the labor market and working life. This process is usually of a practical and technical nature. Rinanto et al. (2019) added in a study they prepared to measure the quality of higher vocational education services in Indonesia that vocational education plays a vital role in preparing and training skilled workers for the labor market; therefore, the quality of vocational education is considered a pivotal and vital topic. Vocational training needs special care, although it is an integral part of the education system, however, it needs a

lot of effort by the responsible authorities and the supporting agencies, because it depends on many requirements, including the practical part and the required occupations, laboratories and equipment, and the requirements of the labor market that the vocational training center should meet in terms of the specializations, skills and skills required. This is confirmed by Pradela (2015), who he indicated that although vocational education is one of the most important elements in the education system, it is still not limited to proficiency in a profession itself, but also requires training in other skills and competencies, including personal, social, and others, therefore, vocational training is a complex form of education.

In Palestine, vocational education and training is considered a governmental orientation, as it was mentioned in the nineteenth government program more than 15 times in the record of its session No. (6) (PCM, 2019a). The government indicated that it would seek to target and enroll more than 30,000 students from Tawjihi and universities in vocational education and training. Several laws and decisions have been issued recently by it, which attempt to revitalize and activate vocational training and education, including Law No. (4) in (2021), which provides for establishing the Vocational and Technical Education Authority to try to reunite formal and semi-formal technical education and training under one entity, and Resolution No. (05) (PCM, 2019b) regarding advancing vocational and technical education. The government also issued Resolution No. (39) (PCM, 2020) to establish a public university for vocational and technical education and training, which began its establishment in Nablus at the beginning of 2022 in order to provide the labor market with the necessary competencies and skills to promote all industrial, agricultural, tourism, medical and service sectors in accordance with the government's vision to keep pace with the acceleration in labor market developments and to combat unemployment among graduates. In addition, the government issued Resolution No. (120) (PCM, 2021) that authorized the approval of operating the VTCs of the Ministry of Labor after official working hours to benefit from the capabilities of these centers more, exploit their resources and increase the number of trainees enrolled in. This indicates the importance of these centers and their effective role. Vocational training was also present in the General Budget Bill 2022, where the law approves funding and support vocational training programs with more than 250 million dollars (PCM, 2022); all these decisions, laws and actions recently taken by the

government indicate the importance that the government attaches to education and vocational training (Hilal, 2019).

Vocational education and training is currently a top priority by the government, not only through laws and decisions but also the strategic plans issued by the government have put vocational training at the top of its priorities, such as the National Employment Strategy 2021-2025 (MOL, 2021) developed by the Ministry of Labor, which pointed out that the current employment situation in Palestine suffers from weak economic activity, and the most important solution to this weakness is the development of the vocational and technical training system, where the harmonization of the vocational education and training system was one of the most important objectives of this strategy, and one of the government's priority policies in the period 2020-2025. Therefore, the strategy sought to accelerate the development and reform of vocational training and education to increase the percentage of enrolment in VTCs. It is also indicated that the government was adopting the development of this sector that increasing the percentage of enrolment in VTCs is one of its priorities due to the low unemployment among graduates of VTCs and the huge shortage of qualified and skilled workers in the Palestinian market and the competition of the "Israeli" labor market to attract them. In addition, the strategy shows that the vocational training system in Palestine suffers from dispersal and weak oversight. Thus, the vocational training sector needs a lot of reforms that must be carried out; the most important is to intensify studies, identify weaknesses of the current reality, and measure all important dimensions that affect the services provided, improvement and development of the vocational training sector based on information obtained from independent, credible studies of the current realities of these centers.

Non-Governmental Organizations (NGOs) are considered one of the most important institutions supporting the Palestinian Authority in several sectors. Their focus is on the influential sectors such as vocational training, and the support provided based on studies prepared by these institutions. One of these studies is (European External Action Service, 2021), which clarifies the European strategy dedicated to supporting the Palestinian Authority for the year 2021-2024 by supporting the vocational training and education sector, which is one of the government's priorities. This study indicates many observations on the vocational and technical training system, its outputs and the quality

of services provided. It focuses on the need for partnership between the government and European institutions supporting the development of vocational training programs and the need for consultations and studies to strengthen and develop this sector to reach the overall goal of European support, job creation, matching demand and supply in the Palestinian labor market and reaching social sustainability. In another study prepared by European Training Foundation (ETF, 2020) an institution considered to be representative of the European Union to conduct studies about vocational training in Palestine, pointed out that the current Palestinian situation in terms of economic and political aspects, unemployment indicators and local market requirements confirm the necessity of developing, and improving the vocational training sector is one of the main solutions to these problems. The study also added that the Palestinian government's vocational training sector lacks a comprehensive approach to ensure the quality of services provided by Palestinian vocational training, despite the need for an approach to monitor the quality of services provided. In addition, the governmental laws that were approved, such as the Education Law 2017, Articles 9 and 11, the Palestinian Labor Law of 2000, and the Higher Education Law of 2018, with the incoming materials related to vocational training are inadequate and do not meet the need that leads to the development of a complete and integrated vocational and technical education and training system. This indicates a need to activate these laws and activate the National Vocational Training Authority, which the government issued a decision to establish, in line with what the stage requires. In sum, this study is an outward look at the reality of vocational training. It shows that there are mechanisms and procedures for quality control approaches in vocational training laws and strategic plans. Still, vocational training lacks a comprehensive approach to quality assurance in many developed countries. This indicates that there is no perception of the reality of the services provided by vocational training in Palestine so that the quality of these services is measured to identify specific weaknesses and working to fix them.

Education and vocational training provide skilled labor to support industry and the economy, reduce unemployment and provide other benefits that are reflected in society in general. So, it is necessary to seek to find an integrated, measurable and evaluable institutional training system that provides training services to trainees to the fullest extent to meet the desires and expectations of trainees and qualifies them to obtain a full the necessary skills and competencies.

### **1.3.2 Service Quality**

Organizations and institutions provide services to the community for many profit and non-profit purposes, each according to the institution and its nature. However, all agree that the main objective of providing services is to meet customers' desires and requirements. In addition, government institutions seek to strengthen the relationship with citizens who receive their services and reach their satisfaction. Siddiqi (2011) defined the service as a set of activities or series of elements that are usually intangible that occur between the customer or consumer, on the one hand, and the employees working for the service provider on the opposite side, through which the customer's problem is solved and her/his needs are met. Meeting customers' requirements and desires and solving their problems should have roles and grounds to judge them, to see if the customer is satisfied with the service provided and the degree of satisfaction with it. Here lies the definition of service quality, which Siddiqi (2011) also defined as a judgment or impression made by the customer on a particular service. Also, it is defined by Sibai et al. (2021) as the judgment of customers who received the service based on their experience with it. In a study prepared by Adams et al.(2016), service quality was identified as a result of comparing the services provided by the institution and organization, customer perceptions and expectations of the service provided and their actual level of satisfaction with this service. From the previous definitions, we can conclude that service quality represents the difference between the actual reality of the service and the expectations and perceptions of the users of this service. Achieving the quality of the service means that the service currently provided matches what the user of the service expects or exceeds. This applies to the services provided by the VTCs, as these centers must provide services that meet the expectations and perceptions of the trainees so that service quality is achieved. Thus, the VTCs achieve their objectives and ensure that the training outputs will conform to the required quality standards. This is what Oldfield & Baron (2000) mentioned, that the focus should be on what the students want and pay attention to their desires more than focusing on what the employees want because the basis of the training process is the trainee. So, their desires, and requirements must be met to develop a feeling of satisfaction and loyalty to the institution. Also, Berrio & Henderson (1998) emphasized the need for strategies designed to focus on clients (the trainees) to achieve a positive orientation and reach their satisfaction. Thus, trainees' interest increases, their dropout from the centers

decreases and gives them a positive impression, and this ultimately leads to an increase in the turnout of the trainees to these centers as a result of their conviction of the quality of services provided.

To verify the quality of the service provided, appropriate measures must be taken. The most important is the selection of the appropriate measurement tool, which gives the desired results, as there are many measurement tools, which often differ according to the nature of the service provided. Numerous studies and comparisons have been conducted between service measurement tools such as (Franceschini et al., 1998; Jain & Gupta, 2004; Shauchenka & Busłowska, 2010), which showed that it is not possible to generalize and consider SERVQUAL and other measurements tools to be better or more valuable than others. In contrast, Shauchenka & Busłowska, (2010) indicated that the nature of the services provided usually varies from sector to sector, so the dimensions of service quality were modified to suit the nature of the service intended to be measured. Also, Jain & Gupta (2004) supported in a comparison between SERVQUAL and SERVPERF that both SERVQUAL and SERVPERF constitute a standard by which service quality is measured, and one cannot be considered better than the other. Still, each has the most appropriate use according to the nature of the service intended to be measured. In addition, a comparison made by Franceschini et al.,(1998), where tests were conducted in parallel on two measuring tools, QUALITOMETRO and SERVQUAL, the study showed that both tools are useful for measuring service quality.

Based on these studies and the nature of the services provided by the VTCs and being an integral part of the educational centers that fall within the educational system, the researcher chose SERVQUAL as a tool for measuring the quality of services for these centers, where Shauchenka & Busłowska, (2010) showed that the SERVQUAL is a simple, easy-to-use and less complex tool that is suitable for measuring the educational system. Jain & Gupta (2004) also preferred to use the SERVQUAL when the aim is to identify weaknesses in a service provided and show them to decision makers to take the necessary measures. Franceschini et al. (1998) explained that SERVQUAL can show the most affected dimensions better than its counterparts. Based on previous studies, the researcher found that the measurement tool that suits this study and that will be used is the SERVQUAL Model.

### 1.3.3 The SERVQUAL Model

The SERVQUAL Model has received a lot of praise from researchers and has been considered an effective tool for measuring service quality compared with other measuring tools for measuring customer's perceptions and aspirations (Sibai et al., 2021). It was also used in many previous studies to measure service quality in many sectors, including health, social, and education in general. It is also used in studies that measure the quality of services in institutions and colleges providing vocational training services in many regions.

The SERVQUAL Model emerged in the 1980s to evaluate the quality of service by Parasuraman et al.(1985) in a study prepared to determine the methods and dimensions of a quality study, as it relied on the fifth gap of the gap model described in Figure 2, which reflects the difference between the qualities offered by institutions or companies and customers' expectations. Finding the conformity between the perceived and the expected service, which was expressed in the relationship: (SERVQUAL = perceived (actual) service - expected service). Parasuraman et al.(1985) put ten dimensions related in customers that used to make their perceptions of service (Tangibles, Understanding, Security, Credibility, Communication, Courtesy, Access, Competences, Responsiveness, and Reliability). In a study conducted by Berry et al.(1998), the SERVQUAL was discussed and used as a tool to measure the quality of the services provided, where the ten dimensions previously reached by Parasuraman et al.(1985) were combined to only five dimensions, which are (Responsiveness, Tangibles, Reliability, Assurance, Empathy-Caring). Also, depending on the fifth gap of the gap model, Figure 2, which is the sum of all the gaps before it and which is the sum of all the gaps after and can judge the quality of service provided by the institution to the extent that it matches the customers' expectations (Liu & Chen, 1985; Berry et al., 1998).

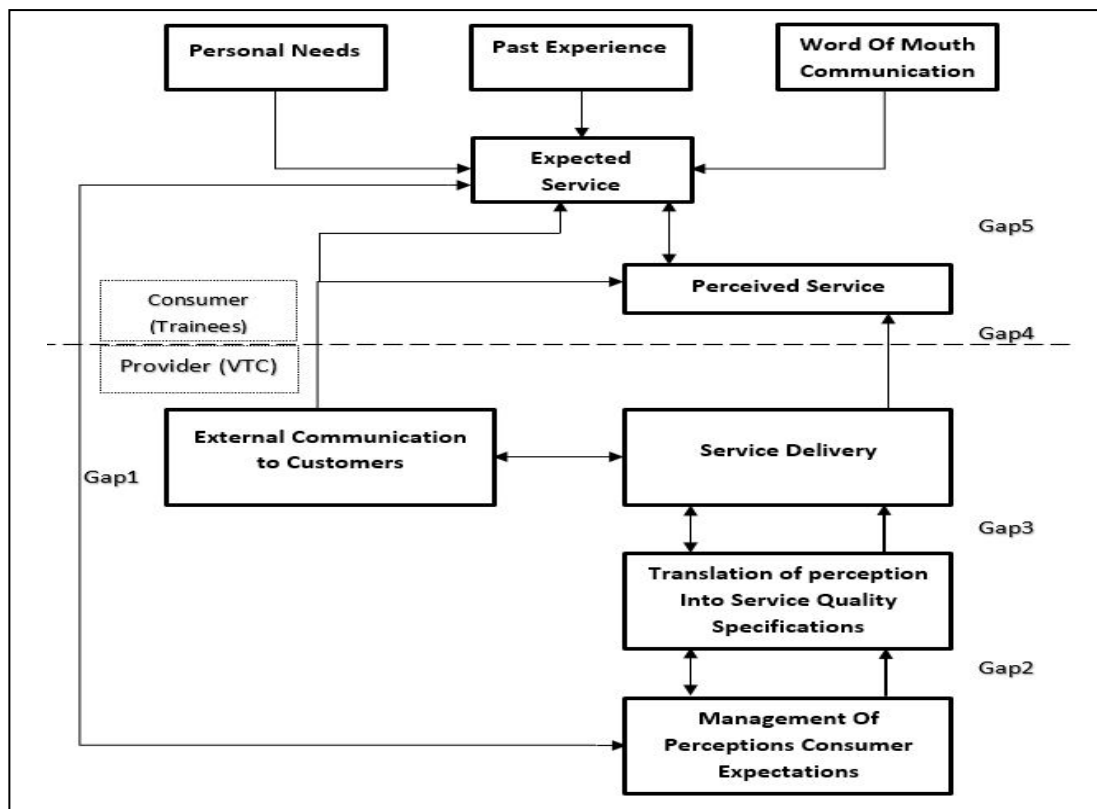
The Gap Model is shown in Figure 2 consists of five gaps which are:

- Gap (1): is called the research gap, which expresses the difference between what the client (the trainee) perceives and what the organization's management expects (the General Administration of Vocational and Technical Training responsible for the centers).

- Gap (2): is called the design gap, where it reflects differences and mismatches between what the management of the training centers realizes for trainees' expectations.
- Gap (3): The presentation gap expresses the difference between the actual performance (reality) and the service quality specifications set by the institution.
- Gap (4): The communication gap represents the difference between the promoted service and the service provided.
- Gap (5): The truth gap expresses the difference between the expected service and the actual service.

**Figure 2**

*Gap Model*



Source: (Parasuraman et al., 1985)

Berry et al.(1998) then relied on the gap model in the development of 5 dimensions, which are as follows:

- Tangibles: is specific to infrastructure, equipment, practical workshops, theoretical halls, and facilities, and usually express the institution's ability to show itself to

external competitors, and it has the most significant impact on other dimensions (Karwati et al., 2019).

- **Reliability:** The ability to provide the service faithfully, accurately and reliably, which is an indicator of the consistency of the institution and the extent of the client's dependence on it. Also, it represents the ability of the centers to provide a certain level of quality from the first time.
- **Responsiveness:** The service providers in the centers should be ready to provide fast and accurate service. It also indicates the employees' desire and willingness to provide the service on time.
- **Assurance:** The knowledge and experience of service providers and their ability to give clients the confidence that they will help them, which is reflected in the trainees' feeling of reassurance that they will receive the complete and undiminished training service.
- **Empathy-Caring:** It provides individual attention by these centers and their understanding of the trainees' requirements so that the trainee feels that he is the focus of the service providers' attention in the centers.

In the vocational training system, the VTCs distributed over the governorates of the West Bank represent service providers, and trainees are the clients who have aspirations, goals, expectations and perceptions, which they expect to obtain upon registration and affiliation with a vocational training center to learn a specific profession and craft. Thus, according to the SERVQUAL Model, the process that will judge the feelings of trainee students after testing the service is called the quality of service from the user's point of view, as Onditi & Wechuli (2017) mentioned.

The results of the service quality test according to the SERVQUAL Model are three options as follows:

1. That the expected and perceived services by the trainees exceed the (actual) services provided. In this case, the quality of the service is unsatisfactory.
2. That the expected and perceived services by the trainees match the (actual) services provided, in this case, the quality of the service is satisfactory.
3. The expected and perceived services by the trainees are the lowest level of the (actual) services provided; in this case, the service quality is excellent and more than

satisfactory, as the service quality is achieved by exceeding the expectations of the trainees (Sibai et al., 2021).

Therefore, increasing the quality of the services provided and increasing the positive feeling of students is done by improving the quality of services provided (Rajput et al., 2019), which was supported by Prakash (2016), who also added that the quality of service has a major impact on customers, their intentions, feelings, and orientations. SERVQUAL has been used in several previous studies and research related to measuring the quality of services in educational institutions, universities, and vocational schools and identifying its weaknesses and strengths, including (Onditi & Wechuli, 2017; Sibai et al., 2021 ; Mestrovic, 2017), where the SERVQUAL provides many valuable and useful results for many educational institutions.

Pradela (2015) study aimed to measure the quality of vocational graduates heading to the labor market from vocational schools in Poland using the SERVQUAL analysis, where the results indicated a weakness in the provision of services and the process of preparing graduates, especially those with disabilities, and based on the analysis and results, the weakest points were identified in the vocational training system, which is that vocational guidance in vocational schools depends only on government capabilities, so the study suggested to hire the expert non-governmental institutions. At the end of the study, the researcher commended, SERVQUAL is a useful and appropriate tool to measure and evaluate the quality of education in vocational schools, and its shows the great potential of SERVQUAL in identifying weaknesses and presenting it to decision-makers in a clear and uncomplicated manner. In another study prepared by Karwati et al.(2019), used SERVQUAL to determine the quality of the education service in vocational schools in West Lombok. The study targeted 200 vocational students, where the results showed a lack of satisfaction with the services and a clear difference between what students expected in vocational schools in West Lombok and what these schools actually offer at the level of all dimensions of SERVQUAL. The study shows weakness at all levels of service quality dimensions, taking into account that the test sample was small; one of the great benefits that many researchers point out is that SERVQUAL is a simple tool that gives effective and specific results for each dimension and weakness in each dimension individually. This is what Azeem et al. (2018) confirmed in examining the adequacy and relevance of SERVQUAL to measure the quality of service vocational

education in Pakistan. Kusumaningrum (2016) also used the SERVQUAL in a case study to measure the quality of service for higher vocational education using the SERVQUAL; where the study resulted in the fact that the higher vocational education services offered in Indonesia are unsatisfactory for students in two important dimensions: tangible and reliability. The case study showed an imbalance in two important dimensions in the education organization in general and in vocational training in particular because the dimension of tangibility refers to infrastructure, training concerns, facilities, curricula, etc. Therefore, it is a very influential dimension in vocational training because it depends on it in the process of practical training; as for the reliability dimension, as this dimension weakness leads to the destabilization of the confidence of the trainees and their inability to obtain their training in a timely manner.

Another example in which SERVQUAL was used is a case study prepared by Rinanto et al. (2019) to measure the quality of services provided by higher education in Politeknik ATMI Surakarta. The study showed a weakness in the quality of services provided. Also, in Saudi Arabia, a study was conducted using the SERVQUAL Model to measure the quality of services provided in the College of Medicine and student satisfaction, negative results appeared in (responsiveness, empathy, and tangibility had a negative gap), which means that the expected services do not meet the perceived services in these dimensions and their students are not satisfied with this part. Still, students are satisfied with services in terms of curricula and teachers (Sibai et al., 2021).

In another study prepared by Rastogi (2017) to assess the quality of services provided at the Community College of the Central University of Rajasthan, where the SERVQUAL model was used and showed the negative gaps between the services provided and what students expected. The result was that the services did not meet students' expectations; using SERVQUAL, problems were identified that affected students' assessment of dimensions where weaknesses were found in empathy and responsiveness. The researcher also pointed out that this was due to a lack of teaching staff and the lack of equipment and concerns at a tangible dimension. The study also showed positive aspects such as students' satisfaction with the curricula and the practical training being implemented. The researcher recommended the need to take decisions to reduce the gap between students' expectations and the actual service provided.

SERVQUAL has been used in numerous studies and showed different results from one study to another; SERVQUAL facilitated the process of evaluation and measurement of services, as it identified the services that were not wholly satisfactory, the services that were considered acceptable and satisfactory, and the fully satisfactory services, and indicated the weaknesses and strengths of the services provided. Thus, the decision-makers could easily understand the results and make effective decisions later. This is consistent with Stasiak-Betlejewska et al.(2014) that SERVQUAL is a useful tool for measuring students' perception and expectations and includes all aspects of services provided by technical universities and gives an answer to the level of services resident in these universities.

### **1.3.4 Competences**

Competence was defined by Onditi & Wechuli, (2017) as the presence of an educational staff in the educational institution who has extensive experience, theoretical and practical scientific knowledge, and the ability to communicate and communicate effectively, and the Ministry of Employment and Vocational Education in the United Kingdom defines competency as a description of the professional capabilities that must exist in the person who will perform a specific job, based on specific criteria (Mulder et al., 2007), and the Palestinian government definition of Palestinian vocational training is that vocational education and training pays to provide students with competencies, knowledge, professional skills and behaviors (Helal, 2020), Onditi & Wechuli, (2017) added that it was used as a separate dimension in many studies that used SERVQUAL or combined within the five dimensions in other studies.

In 2019, the Palestinian Ministry of Labor updated all the curricula of vocational training centers with the support of the German Foundation for International Cooperation (GIZ), using what was called the "standard national method", where these curricula were built using the method of complex tasks, and these curricula relied mainly on competencies based on the needs of the labor market and Competency-based Education and Training was used in this, and the labor market was involved in developing these curricula to increase the efficiency of the trainees and accelerate their integration and employment in the labor market (Helal, 2020), and this was confirmed by ETF, (2014) that updating the curricula and content and linking it to employment will produce The development of professional competencies.

Shauchenka & Busłowska, (2010) showed that competency can be measured through the dimension of Responsibility and the customer can be asked about it by asking whether the service providers are knowledgeable, competent and trusted. While Rastogi, (2017) sees that the outputs of tangible and intangible assets, in addition to educational services in vocational training centers, are provided to trainees to produce a qualified and skilled trainee, in a study prepared by Pradela, (2015) that was prepared to measure the quality of vocational training graduates in Poland, it showed that final competencies and skills are measured by employers, but competence can be measured by asking trainees within two dimensions: assurance and empathy for service providers, The researcher relied on Competences as an alternative to assurance dimension in the vocational training process, and adopted it in preparing the questionnaire in his study, and he was able to obtain an evaluation of competencies through his study of some vocational training schools, and the results of some of them were positive and some were negative.

When talking about competency in vocational training and its mediation between assessing the services quality of training and employment relationship, we find that there is a great interdependence between them, as competency is not limited only to functional practical matters, but rather includes the development of personal characteristics and behavior of the individual and the development of social characteristics and what is called social competencies, Such as how the trainee deals with different customers in the labor market and a lot of knowledge that the trainees must develop in conjunction with the development of their professional practical skills so that they lead to matching and simulating the stage that follows training, which is employment, Therefore, developing the competence of the trainees is important for the trainees, society and the labor market, and the process of assessing the competence of the trainees and the existence of standards to measure them and the existence of formal or informal grades or levels is necessary to ensure the arrival of a professional with the appropriate competence to the appropriate job and this is considered a very important matter (Mulder et al., 2007), this was also confirmed by the study (Heijke et al., 2003) in discussing the importance of developing the competence of trainees and learners to obtain jobs, as it indicated that the presence of clear competency levels and attention to them affects positively and contributes to professionals obtaining jobs faster and

considered that the quality of education Vocational training is complementary to the level of competence acquired.

The concept of applying vocational competency differs from one country to another, and this difference is related to the policies and frameworks that each country has set for vocational training education, and this is reflected in the method of developing the competence of trainees and linking them with the labor market and employment, in Germany, for example, which is considered a pioneer in vocational training and education in the world, competency standards are set by representatives of government agencies responsible for the vocational training sector, in addition to representatives of the labor market, Germany is characterized by the existence of a complete system and clear criteria linking the quality of training and competence reaching to employment, while in England, competency in vocational training is given great importance, as educational curricula are designed mainly based on competency, and therefore to comply with labor systems and the labor market, which is constantly changing and developing. So, there is a great need for the vocational education and training sector to synchronize with these changes to meet the needs of the labor market and keep pace with it continuously, therefore, competency was divided into several levels from 1 to 5, where each level represents a set of skills and knowledge. The more complex and difficult the skills and knowledge, the higher the competency level of the trainee, in addition, these levels have been linked to the employment process, as it has become mandatory that there be a clear description of the tasks and work required for a job. Accordingly, it is not possible to apply for this job except for those who have a level of competencies that is equivalent to the level of professional requirements for the job, VTCs in England are evaluated by representatives of the labor market and business owners, and this constitutes a great addition to the quality and the competency of services and keeping pace with the market. In France, its different from what Germany and England follow, where there is no clear standard or framework for the concept of competence, but the labor market is analyzed and based on this analysis to develop the professional competencies that students should master, and employers are involved in these analyzes (Mulder et al., 2007).

When comparing some countries that support the vocational training and vocational education sector in Palestine in terms of its inclusion in the policies, laws and standards

that regulate vocational training and link it to employment, it can be noted that in Germany, for example, vocational competence is applied according to systematic standards and regulations and is closely linked to the quality of services and the process of employment. Likewise, in England there is a dedicated system included in the National Standards and linked to employment through the levels that have been set out. In France, there is a clear structure and continuous analysis of the labor market, although there are no specific levels included in the national standards, and there is no official assessment similar to that in Germany and England (Mulder et al., 2007).

In Palestine, the authorities responsible for vocational training and education are still seeking to try to develop a clear system of professional competency, but they have not been able to find a clear definition of the levels and link them to the labor market, because there is no single authority responsible for vocational education and training, which is dispersed among a number of the Ministry, although Taking decisions to establish the Vocational Education and Training Authority to be an umbrella for all forms of education and vocational training. Therefore, the Ministry of Labor, which is responsible for VTCs, has taken steps in the field of raising the professional competency of the trainees, by introducing the professional competence approach used in Germany to its curriculum in an attempt to keep pace with developments in the labor market and increase the quality of training in VTCs (Helal, 2020 ; ETF, 2014).

Therefore, in Palestine, there are no clear standards recognized with regard to the concept of competency, and there are no clear and recognized levels by the official authorities, unlike many countries such as England, Germany, and France, where there is a convergence in their concepts and principles, despite the existence of different methods and methods for applying and measuring them.

Through Mulder et al., (2007) study, we can note that vocational training and education in Germany is based on linking competency to the quality of services, which is represented in this study by the SERVQUAL dimensions from tangible equipment to responsiveness to reliability of services in addition to both assurance and empathy, at the level of interest in the personal or social fields during the provision of vocational services and the transition from training services to high- quality and efficient training services reaching to a suitable job, which is what this study assumed the necessity of mediating competency between the quality of services and employment.

Therefore, the presence of quality in the training services provided by VTCs and in light of the development of the competency of the trainees is very important for the trainees to obtain jobs in Palestine, this was indicated by Banat et al., (2017) in a study prepared by the German Cologne Chamber in cooperation with the Palestinian Chambers of Commerce organization, and it is the only local study that was obtained in relation to the quality of competencies of trainees graduated from VTCs in the West Bank, this study indicates the suitability of the competencies of graduates of vocational training centers, which helped the trainees to obtain suitable and continuous jobs, The results of this study also show that the quality of the competencies of the trainees who received training in VTCs and moved to the labor market was medium at 50.9%, and 20.9 % of them had a high quality of competency, while the results showed that 22.9% of them had weak to very weak quality of competency, with regard to the suitability of these competencies for the labor market, the study indicates that 83.4% employers answered that the vocational competencies of graduates of the VTCs are appropriate for the labor market and meet its needs, while 16.5% of employers indicated that they are not appropriate (Banat et al., 2017).

### **1.3.5 Employment**

Graduates of vocational training have several options after graduation. Some of them move to practical life by opening private projects and starting work such as mechanics, carpentry, etc... Or individual work for professions such as tiles, construction, sanitary installations and air conditioning and refrigeration, etc..., and the others whose programs include direct employment, by connecting them through an intermediary such as the Chambers of Commerce or the Employment Department in the Ministry of Labor or the supporting agencies with the operators, thus, the graduates move directly to work after completing the courses, In addition to the last section, where some of the trainees of the vocational training centers are basically working and have professions and have projects to work on, but they joined the vocational training centers to develop their professions and expand their projects, such as a carpenter who needs to learn CNC or a mechanic who wants to learn car programming. Therefore, there are many options for employment and work for the graduates of the centers, this is what gives this sector great importance in light of the labor market need and high unemployment, and this is what was proven by the Turin report, which was specially prepared by the ETF for the

development of vocational education and training skills, as it included important statistics regarding the employment of vocational and technical education and training graduates, It was found that the youth participation rate in the labor force in Palestine in 2019 amounted to 98%, and that the employment rate among them was 77%. These rates increased after following the WBL (Work-based learning), which is a methodology of education in the work environment, where the employment rate among youth reached 90% (Helal, 2020), and according to statistics conducted by the United Nations agency Relief and Works for Palestinian Refugees UNRWA (2016) in 2016 that the employment rate for young people is 90% for males and 75% for females (Helal, 2020).

One of the best options for vocational education and training programs in Palestine is WBL (Work-based learning), where this program can be defined as one of the main programs developed in the vocational training system in Palestine. This program combines training and learning in the centers with real work in the private sector, whether paid or unpaid. So that the trainees benefit from the experiences and skills of production, services, and dealing with customers in a realistic way, and the trainees have an opportunity to be employed in their workplaces if their competence is proven. Employers also benefit by saving money and time (Jweiles, 2018). In a study prepared by the Lutheran Union in Palestine, the employment rate for vocational education and training graduates exceeds 90%, an increase of 15% over previous years due to the adoption of learning programs in the work environment (Helal, 2020).

As mentioned previously, there are many graduates of vocational training who go to individual work, as Helal (2020) indicated that 35.8% of graduates work in their own projects or practice individual work by taking contractors and workshops to work in.

In light of the unemployment crisis that exhausts many countries of the world, vocational training emerges as a major solution at the level of work of international development agencies in general, due to its high and main position in linking youth competencies with the needs of the labor market (Zimmermann et al., 2013; SDC, 2016), where high-quality vocational training contributes to job stability and increases employment prospects and also contributes to the stability of the labor market by meeting its needs and increases economic productivity and social cohesion (Zimmermann et al., 2013; Korpi et al., 2003), and often individuals get Vocational

enrollers get quick jobs. In a study conducted on more than 18 countries, Hanushek et al., (2011) confirmed that vocational training is one of the trends that lead to obtaining a job quickly, but it will have negative results with the progress of the life cycle of employees, so that they will be more likely to leave their jobs with scientific progress and development. However, those who possess educational degrees in addition to vocational skills are more stable and have greater job security, this was confirmed by Jamal et al., (2012) and Forster et al., (2016), where the results showed that holders of educational qualifications in addition to vocational qualifications get jobs faster than those who hold vocational qualifications only, Zimmermann et al., (2013) added in a study of the relationship between unemployment and vocational training, where the researchers stressed the need for high-quality vocational training to link young people the labor market by developing their competency, which is consistent with the main hypothesis of this study.

One of the most important phases of vocational training is the application phase, external training, or what is called training in the labor market, and it takes place outside the vocational training center, regardless of its method, whether at the end of the training program or if it coincides with training, which is called the apprenticeship system. The external training process is considered one of the important stages of employment, as it contributes to increasing the possibility that the trainees will get a job opportunity in their training places, that the higher the competency of the trainees, the greater the confidence of employers in the graduates of VTCs (Zimmermann et al., 2013; Korpi et al., 2003), and the Swiss Development Agency SDC, (2016) adds that one of the most important factors for the success of vocational training is the involvement of the private sector and the labor market within the vocational training system, In other words, vocational training programs are a high quality programs and suitable for the labor market.

Vocational training and education not only aim to provide jobs and reduce unemployment, but also aims to make young people in conditions that allow them at any time to search for work or work on establishing private entrepreneurial projects (SDC, 2016).

Through some studies related to the employment of vocational training graduates, there was a discrepancy in the values that we reached regarding the employment rate of

vocational training graduates in Palestine due to the existence of time differences between these studies and to include graduates of formal and informal vocational education (Banat et al., 2017; Helal, 2020; El-jafari, 2010), However, all of them indicate high rates of obtaining jobs for graduates of the vocational education and training sector in Palestine. The study Forster et al., (2016) stated that 62% of graduates of vocational training centers in Palestine get a job after 6 months of their graduation, and 79% get a job a year after their graduation. In another study, Banat et al., (2017) indicates that 53% of graduates of vocational training centers get a job, but he indicated that there is a discrepancy in job opportunities among graduates of vocational training centers in terms of specialization, there are majors with an employment rate of 100%, such as construction, bricks, and lathing, followed by specializations in car sitting and maintenance, with an employment rate of 89.3%. As for the Turin report (Helal, 2020), which was based on several studies, including what is in 2018 that the employment rate was 77%, which is similar to a study conducted by UNRWA in 2016, this percentage increased and reached 90% after the approval of the learning program in the work environment.

In Palestine, vocational training centers provide their services free of charge, and thus it is considered an opportunity for the unemployed to have greater options for employment at very low costs, especially for those who cannot afford regular education expenses (SDC, 2016).

In a study related to the role of vocational training in Palestine in enhancing the role of the marginalized, Hilal & McGrath, (2016) indicated that vocational training is basic in eliminating unemployment among young people of both genders and providing a sustainable economy. In addition to accessing decent work, or what is called it, for continuous and long periods of time, whether it is free and private work, or in companies, factories, and other areas of the private and governmental labor market (SDC, 2016; Zimmermann et al., 2013), Jamal et al., (2012) and SDC, (2016) believe that vocational training and education is also importance in improving the skills of employees by integrating them into vocational training during their work to acquire new skills or develop their skills, which is called complementary courses and thus increases The productive and competitive capabilities of the institutions in which they work, so that they stay informed of the labor market.

Therefore, the VTCs of the Ministry of Labor must provide high-quality services to graduate trainees for the labor market who are characterized by competency in addition to skill, meet the needs of the labor market and achieve the general goal for which they were established (Hilal & McGrath, 2016).

### **1.3.6 Hypothesis Development**

#### **1.3.6.1 VTCs Service Quality Gap and Employment**

Vocational training centers provide their services in the form of educational training programs for a specific profession or craft (UNESCO, 2018; ETF, 2020), where trainees join these centers to obtain these services to achieve the main goal of obtaining jobs and businesses or developing their current businesses after completing the training as a major and quick solution to the problem of unemployment, as mentioned in previous studies, including (Hilal, 2019; MOL, 2021; Jweiles, 2018), and to achieve this goal, their expectations for these services must be evaluated and compared to the actual services provided by vocational training centers, thus measuring the quality of the services provided (Abdullah, 2018 ; Hilal, 2019; MOL, 2021; Banat et al., 2017). The difference between what the trainees expect and what they actually found of services is called Service Quality Gap, where the result of this relationship is usually satisfactory if the expected and actual services are equal, and more than satisfactory if the actual services exceed expected services, and are unsatisfactory if their expectations exceed the actual service (Liu & Chen, 1985; Berry et al., 1998; Sibai et al., 2021).

In many studies, a link is usually made between Service Quality Gap and Satisfaction for service users (Zarei et al., 2015; BHUIAN, 2021; Ali & Raza, 2017), and other studies specialized in measuring service quality for educational and vocational institutions that provide services similar to the services VTCs provide (Karwati et al., 2019 ; Sukardi et al., 2022 ; Rastogi, 2017), and the relationship between Service quality Gap and Satisfaction is considered an inverse relationship such that the higher the Service quality Gap, the lower the Satisfaction in these studies, and in the study (Prakash, 2016) emphasized that taking students' expectations into consideration and meeting their requirements contributes to quality education, increases employment opportunities, and reduces unemployment in society. The quality of services provided by vocational institutions has also been linked to the employment process as a main and important factor and expressed in a positive relationship, such that the higher the quality

of service provided by vocational training centers, the greater the employment opportunities, and this is what was emphasized in the study of (Rinanto et al., 2019 ; Kusumaningrum, 2016) which showed that the presence of a gap in the services provided negatively affects the employment process and the labor market, and since the gap represents in this study the inverse value of service quality, the difference between (expected and perceived), the first hypothesis was proposed as follows:

H1: The VTCs Service Quality Gap has a negative effect on Employment.

#### **1.3.6.2 VTCs Service Quality Gap and Trainees Competency**

The services provided by educational institutions in general and VTCs in particular are linked to the concept of competency (Onditi & Wechuli, 2017), and when looking at the definition of vocational education and training, we find that Trainees' competency is a major part of the vocational training process and is closely related to the nature of the services provided by VTCs (Helal, 2020), many studies have touched on trainees' competency and its impact on service quality, which were mentioned in the literature review, as the study (Sukardi et al., 2019), which considered that trainees' competency is a key factor for improving the competitiveness of graduates in the labor market which requires improving the quality of services provided by reducing the Service Quality Gap, which is consistent with the study (Shauchenka & Busłowska, 2010 ; Pradela, 2015), which confirmed that quality is positively related to the concept of competence of those affiliated with educational institutions, this is also in line with what was concluded in the study (Kusumaningrum, 2016 ; Banat, 2020), which emphasized the importance of the competency of trainees graduating from VTCs, with its negative relationship with the Service Quality Gap, which is consistent with what was hypothesized in the study (AL-Qadhi & Abdullah, 2021) that there is an inverse relationship between the presence of gaps in training services and the trainees' competency who receive the training, moreover, *Ausbildungsqualität*, (2022) adds that the presence of Service Quality Gaps negatively affects the trainees' competency and increases their dropout from training programs, so the second hypothesis was proposed as follows:

H2: The VTCs Service Quality Gap has a negative effect on Trainees Competency.

### **1.3.6.3 Trainees Competency and Employment**

Employment is considered the primary goal sought by those seeking services from vocational training centers, as it is the outcome that everyone seeks, employment is also considered one of the main reasons for which the vocational training centers affiliated with the Ministry of Labor were established, where Providing trainees with multiple professional, technical, personal, social, and other competencies consider as an important factor in ensuring that trainees are able to obtain rewarding jobs (ETF, 2014), based on previous studies conducted by the ETF on employers, it confirmed the existence of a positive relationship between trainees' competency and employment, which called on supporters of the training and vocational education sector to work on increasing the participation of competency-based training with labor market (Helal, 2020), in the study (Muhammad, 2017), the positive correlation between Trainees Competency and Employment was indicated, and this is consistent with what Jweiles, (2018) concluded in his study, where he stressed the need to develop trainees' competency in a manner consistent with the labor market to increase appropriate employment opportunities for trainees, and in a study (Sukardi et al., 2019), the competitive ability of vocational education graduates was linked to trainees' competency and their ability to create special projects and not just get a job, SDC, (2016) considered that the lack of trainees' competency is one of the main factors that lead to vocational training graduates not obtaining jobs. Based on the above, Trainees Competency positively affects Employment, and this leads us to the third hypothesis:

H3: Trainees Competency has a positive effect on the Employment of VTCs graduates.

### **13.6.4 Trainees Competency mediate between VTCs Service Quality Gap and Employment**

In various definitions of the quality of services in the field of vocational education and training, which the ETF addressed, the process of preparing and developing the skills and competencies of trainees and providing them with knowledge through high-quality training services leads to them obtaining future jobs. In general, the employability of graduates of educational and training institutions and their employment rate are among the indicators that it is seen as a result of the quality of service provided (Prakash, 2016), and Rastogi, (2017) supported the existence of a relationship between reducing

the Service Quality Gap of VTCs and employment by focusing training on raising the trainees' competency to satisfy employers in the labor market, Pradela, (2015) linked the quality of training services and the training process in the labor market (training and employment) through information provided by employers to develop trainees' competency, which contributes to increasing the opportunity to employ trainees permanently which is a system similar to WBL, which was referred to in the literature review section, in the study (Ausbildungsqualität, 2022), emphasis was placed on the necessity of the trainees' Competency factor as an influential factor in employment and is affected by the quality of service provided, which is consistent with (Hilal & McGrath, 2016 ; Jamal et al., 2012), and Zimmermann et al., (2013) recommended on the need to link quality vocational training services with the needs of the labor market by developing competency, which confirms the need for trainees' competency to mediate the relationship between VTCs Service Quality Gap and Employment, and trainees' competency has a positive relationship with the employment of graduate students, according to the Conceptual Framework adopted by Mokhtar et al., (2022), and thus this relationship mediates between VTCs Service Quality Gap and Employment, and this leads us to the fourth hypothesis:

H4: The Trainees Competency mediate the relationship between VTCs Service Quality Gap and Employment.

## **Chapter Two**

### **Methodology**

#### **2.1 Overview**

This chapter describes the approach used, the study population, and the study sample. It also explains the procedures and steps of the practical research used in order to achieve the objectives of this study represented in assessing the perceived quality of services provided by vocational training centers in the West Bank and its impact on both efficiency and employment from the perspective of the trainees. Therefore, this chapter addresses the type of research, the approach followed, and the process of data collection, in addition to methods of analyzing and processing data and ensuring its credibility and stability.

#### **2.2 Research Types**

Research is a practical way to solve a problem in a systematic and objective manner (C.R.Kothari, 2016), Research also expresses a continuous effort to access the correct real knowledge and to make decisions based on their results (Hair et al., 2020), Also, as Anusree, (2014) defines business research as the process of extracting information through the process of collecting, documenting and checking data in a systematic and objective manner, Hair et al., (2020) adds that it is the process of searching for the truth through Collect, analyze and interpret information and prepare reports to make appropriate decisions.

Research types or sometimes known as research design, which is an important stage in the design of the research that aims to develop a scheme that includes all the steps that the researcher will follow from setting hypotheses, collecting and analyzing data, and the conditions that the researcher must achieve while completing these steps Kothari, (2016) and Anusree, (2014) considers that planning is one of the most critical steps in the Research Design process, and that it is an actual framework that defines the detailed steps that the researcher follows.

Research types are classified into Descriptive, Exploratory, Causal and Experimental, where the Descriptive research is characterized by its systematic approach and the problem is partially defined, the results that fall under this type of research need to be

explored extensively, as for Causal and Experimental research, the problem is clearly evident and also takes place within a systematic and accurate approach, and the results of these researches are closer to confirmation.

Descriptive research is designed to describe the appearance, attitude, behavior or characteristics of a group or individual by collecting measurable data and information, where descriptive statistics are used to evaluate and test relationships (Joe F. Hair et al., 2020), and to determine the interdependence of variables with each other, so it must be known what will be measured and tested clearly and what methods will be used in the measurement process (.Kothari, 2016), the descriptive research is designed in an organized manner so that all the characteristics developed by the researcher in the research questions are measured (Hair et al., 2020), Observation and Survey are usually used in these researches, where these surveys are quantitative, but it is possible to use The qualitative approach in some of its aspects (Anusree, 2014), and descriptive research is considered a research that describes the relationship between variables and cannot control these variables, necessary requirements in this type of research is the correlation of data collected with the study by identifying the study's objectives with great precision as well as the need to make sure that non-alignment is achieved and increased reliability (Kothari, 2016). Hair et al., (2020) adds that descriptive research used to test hypotheses so it's used in confirmatory studies, which differs from exploratory research.

Causal research which also known as experimental research is used to find a causal link between variables and understanding the causes leading to a certain behavior Hair et al., (2020) and Singh, (2007) defined the Causal Research as research designed to find the relationship between cause and effect and determine the nature of this relationship.

Exploratory research is carried out within an irregular approach, and the research problem is unclear and ambiguous, and there are not enough theories available to create hypotheses, and the results of this research are towards exploration (Hair et al., 2020), exploratory research usually answers the questions how, why and what (Sreejesh Sanjay Mohapatra Anusree, 2014), Therefore, this type is used in the case of lack of studies and scarcity of data, or the researches related to a specific problem has become outdated, so it relies on the examination of literature review and questions and may follow desk research and may also include field work (Hair et al., 2020), exploratory research is

usually associated with qualitative techniques because exploratory research usually generates ideas that can be applied to the quantitative approach to test them effectively (Hair et al., 2020).

Based on the aforementioned studies that clarified the types of research, its design, and the characteristics of each type, this study falls within the descriptive-analytical research, which aims to assess the quality of services provided by vocational training centers in the West Bank from the perspective of the trainee and its connection with the efficiency of trainees and employment.

### **2.3 Research Approaches**

The set of default procedures and steps related to the process of collecting, analyzing, and interpreting data is called the research methodology, and the researcher's choice of research methodology depends on the research problem and its nature.

The research methodology can be classified in two ways, the first of which is related to the approach used in data collection process, and the other is related to the approach used in data analysis process (Creswell, 2013).

The data analysis approach is divided into three sections: Inductive approach, Deductive approach, and Abductive approach, where the Inductive approach is used in the case of studies that aim to generate ideas and theories, where learning from experience is relied upon and the researcher in inductive studies is not required to apply hypotheses and it can change the direction of the study in the advanced stages of research, the qualitative approach also requires the use of the inductive approach in the data analysis process (Creswell, 2013).

The inductive approach is also suitable for researchers who choose simple and non-technical qualitative analyzes, which makes the qualitative analysis process effective and direct to reach the desired results (Thomas, 2006; Saunders et al., 2009).

Deductive approach is used when the researcher aims to find a causal relationship, where at the beginning the researcher defines the hypotheses (creating a theoretical framework), and then the methods in which these hypotheses will be tested are chosen so that the researcher moves from the general to the specific, this approach is also suitable for the quantitative data analysis (Creswell, 2013), and therefore, in the case of

following this approach, the data collected and analyzed are compared with the hypotheses that were developed at the beginning of the study (Thomas, 2006; Saunders et al., 2009).

Abductive approach designed to address the negatives of the deductive and the inductive approach represented in how to choose the theory in the deductive approach and the lack of data that will build hypotheses in the inductive approach, where it begins with observation or what called sudden truth, followed by the development of theories or hypotheses (Saunders et al., 2009).

While the data collection approach is divided into three sections: Qualitative Approaches and Quantitative Approaches Mixed Methods Approaches.

- **Qualitative Approaches:** Used in cases that require the presence of non-quantitative and non-numerical evidence to evaluate the researcher's vision, this approach uses techniques such as text and image analysis and interviews, often be as a narrative nature. Qualitative research can be an introduction to quantitative research )(Hair et al., 2020), it's also particularly suitable for the behavioral sciences (.Kothari, 2016) and considered one of the appropriate methods for exploratory research, as it contributes to the development and formulation of the theoretical framework (Joe F. Hair et al., 2020).
- **Quantitative Approaches:** In this approach, the form of data is quantitative, so there is an extensive and accurate analysis of this data, therefore, it is usually used in studies that can be expressed quantitatively (.Kothari, 2016), this analysis includes quantitative data collected by the researcher, either questionnaires, quantitative reports, graphs, or any similar data then analyzed by various statistical methods, usually used if the hypotheses and theories are clearly defined (Hair et al., 2020).
- **Mixed Methods Approaches:** The process of choosing the approach, either to be qualitative or to be quantitative, puts the researcher in distress because some studies need to collect and analyze data of a quantitative and qualitative nature at the same time, in addition to the possibility of using common tools to collect this data such as questionnaires Saunders et al., (2009) and . Hair et al., (2020) indicate that the use of both quantitative and qualitative research approaches together contribute better to effective decision-making.

This study relied on the deductive approach and the quantitative approach for data collection and data analysis, where the questionnaire technique was used to collect data then analyzed in the Smart PLS 4 program.

## **2.4 Research Methodology**

A research methodology expresses the methods that the researcher followed and used in a systematic manner in preparing a project to study a research problem, and it includes the strategy, mechanism, tools and techniques that were used to complete the research study, for each research study, the researcher must choose a methodology that is consistent with the nature and objectives of the study (.Kothari, 2016).

A research process involves several stages, beginning with the research formulation which ensures defining the study problem, the reasons for the study, setting the study questions, forming hypotheses, as well as the literature review, followed by the implementation stage, which includes data collection, sample selection methods, data collection and documentation methods, then moving to the data analysis stage for the collected and documented data that includes the use of analysis techniques, drawing relationships, obtaining results, and building recommendations according to these results, .Kothari, (2016) states that research methods consist of three steps: the first step is to determine the data collection methods and the second is to determine the statistical methods that the researcher will use in the process of analyzing the data and finding relationships and the third is to determine the ways in which the researcher will test the results and examine their accuracy and credibility.

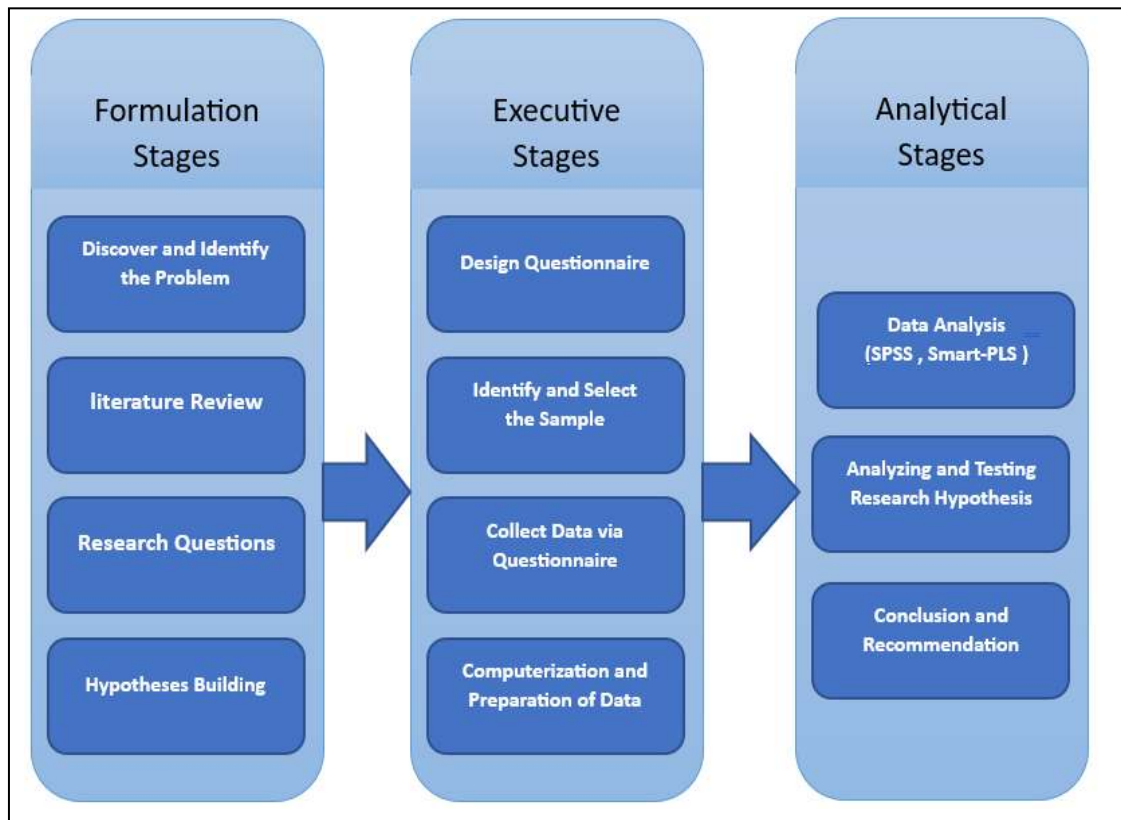
As shown in Figure 3, this study was built according to the main stages of formulation, implementation and analysis, where the study problem was defined, which is the need to assess services quality provided by vocational training centers in the West Bank from the trainee point of view and the impact of services quality on the efficiency and employment of trainees, using the SERVQUAL Model developed by Parasuraman et al. (1985) based on the gap known as Gap No. 5, which is related to the client's perceptions of the current services provided by the centers and the service expected to be received by the trainees (clients) and allows determining the extent of their satisfaction, and the study questions were developed and the literature was reviewed for the main variables

Related to the study, formulating and developing hypotheses, and forming the conceptual framework using the quantitative descriptive analytical approach.

The implementation stage then included the formation of the questionnaire, which is considered one of the main elements on which this study relied to produce its results, as experts in vocational training field were consulted to review the questionnaire formulation and arbitration to ensure that all the variables and hypotheses targeted by the study are addressed, the size of the sample was also determined in this stage, then the questionnaires were distributed to all vocational training centers of the Ministry of Labor in the West Bank in a paper manner.

**Figure 3**

*Methodology Flow Chart*



After completing this phase, the analysis stage was completed where the researcher relied on the SMART-PLS 4 program in data analysis, testing the hypotheses that were developed, examine their accuracy and credibility, and produce and interpret the results.

## 2.5 Sampling Techniques

Sampling process is defined as obtaining conclusions from an entire community through a small sample of this community, as this sample has characteristics that represent the characteristics of the community as a whole, meaning that if a study is conducted on this sample, the results will represent the entire study community (Anusree, 2014; Kothari, 2016).

Respondents were chosen based on random sampling technique from 10 vocational training centers in West Bank, where the number of trainees affiliated with these centers in January, according to the report of the General Administration for Vocational Training is 1116 trainees (465 females or 42%, and 651 males or 58%) distributed among the 10 centers, noting that the number of trainees varies from one month to another, so the questionnaires were distributed in the same month, the These trainees have different scientific levels, and belong to different specializations, ages and gender in order to be able to generalize the results of this study to the community as a whole, then the sample framework was determined to include the trainees who were affiliated with the center for a period of more than four months so that the trainee could give a neutral and correct assessment of the actual reality of the services provided by the center for a sufficient period and comparing it with what they imagined before joining the center(Banat et al., 2017; MOL, 2021; Hilal, 2019).

The sample size was calculated by using Steven Thompson Equation represented as follows

$$n = \frac{N \times p(1-p)}{[N-1 \times (d^2 \div z^2)] + p(1-p)} \dots\dots\dots(1)$$

Source: (THOMPSON, 2012)

Where:

- N represent the population size, where the number of trainees during the questionnaire distribution period was (1116).
- z represents the confidence level at the level of (95%).
- p represents the Probability by (50%).
- d represent the Error proportion at a value of (0.05).
- n represents the sample size = 286 And the result

Pilot test and Content validation was made and according to that 633 questionnaires were distributed to the trainees, 554 of which were answered, and 79 were considered invalid, which consisted of unanswered or partially answered questionnaires, the distributed questionnaires were doubled, because the nature of the study population is trainees, some of whom are of low educational levels, young ages, and different professions, therefore, it was decided to raise the sample size in this study in order to reach results that reflect the study community as a whole, where the larger the sample size, the stronger the results, which is consistent with (Saunders et al., 2009; Anusree, 2014).

## **2.6 Pilot Test and Content Validation**

In order to conduct a preliminary test for the questionnaire before distributing it to the study population, a pilot test was carried out, so that the researcher and the judges of the questionnaire could ensure that all questions were understood first and that all respondents fully understood the questions, thus working to reach the complete answers (Hair & Brunsveld, 2019). In addition, and before distributing the questionnaire, it was reviewed by the study supervisor and experts in the field of study, and to ensure that the questions were formulated and that they are compatible with the study community consisting of different ages and different scientific groups, the arbitrators made their comments on the level and form of the questionnaire, and the questionnaire was modified and revised based on these comments, and to ensure that all elements of the questionnaire were understandable, simplified, and compatible with the study population, pilot testing was conducted on 35 participants who were selected from two different centers, different specializations, and different ages, questionnaires were distributed to them in Arabic, and after they finished filling out the questionnaires, the researcher listened to their comments on the questions, then they were discussed with the experts and the supervisor, then, the necessary modifications were made, which included changing the wording of some questions to be simpler to understand, and the form of the questionnaire was modified to be clearer. After completing the previous steps, the questionnaires were finally revised and audited and the researcher moved on to distribute the questionnaires to the study population, taking into account the exception of the participants who participated in the experimental questionnaire.

## **2.7 Measurement Development and Questionnaire Design**

The questionnaire was adopted in this study as a main tool for collecting data and testing the hypotheses of the study. The questionnaire was designed and built using the quantitative approach, the research depends on the Literature reviews to determine the variables and formulate the elements related to them as shown in Table (D.1) Appendix (D).

The questionnaire was divided into 3 parts:

- The first include trainee demographic data and information (gender, age, academic level, geographical location, specialty to which the trainee was affiliated) where the trainee information was filled by choosing the correct answer.
- The second include questions related to the SERVQUAL dimensions distributed as follows:
  - 5 questions on tangibility dimension.
  - 4 questions on reliability dimension.
  - 4 questions on empathy dimension.
  - 4 questions on responsiveness dimension.
  - 4 questions on assurances dimension.

Each question is answered twice, one represents an assessment to the actual quality level of the services provided by the vocational training centers and the other represent the expected quality level for these services by using Likert scale (1 to 5).

- The third include elements measures the competency and the employment, where the questions distributed as follows:
  - 4 questions to measure the competency.
  - 3 questions to measure the employment.

Using Likert scale (1 to 5).

The questionnaire can be found in the Appendix (A).

The questionnaire was distributed as a paper form and in a face-to-face manner to the targeted sample, due to the difficulty of dealing with the electronic questionnaires by some of the trainers in the VTCs, as 10 centers were visited in January-2023, and the

data was accurately dumped later on the Microsoft excel program, processed and stored to be ready for the analysis stage.

## **2.8 Data Analysis Techniques**

The researcher used the program SPSS Statistics 26 in this study to describe availability of variables, summarize the characteristics of the demographic variables of the respondents to the study, and to calculate the average weights and the standard deviation, in addition, Path analysis modelling was also used by the partial least squares method (PLS-SEM) in order to validate the model on which this study was based and to examine the interrelationships between the variables, where PLS-SEM is considered one of the preferred techniques to be used for the possibility of assessing correlations, testing hypotheses and relationships between variables and what they associated with, and the possibility of verifying the validity of the constituent structure, including a large number of indexes in the model, testing the intermediate variables that exist between the dependent and independent variables (Asyraf, 2014).

So, the researcher decided to use the (Smart PLS 4) program, where the model was built by adding latent variables and linked with each other and determining which variable is an independent variable, dependent, and mediator, then the processed data was added (questions with each variable of their own), then the assessments and estimates were conducted through two stages: the first was the assessment of the measurement model and the second was the evaluation of the structural model (Hair et al., 2020).

In the first stage, the confirmatory composite analysis (CCA) of the external reflective measurement models is conducted first by testing the indicator loadings and their significance, secondly by verifying the indicator reliability by measuring the amount of discrepancy between the individual indicator variable and its associated construct, thirdly, by examining the construct reliability through Cronbach's alpha and composite reliability test, which is considered more accurate according to Hair et al., (2020), fourthly, by measuring Convergent validity by calculating the average of the reliability of the building index, which represents the average variance extracted AVE, and fifthly, by measuring Discriminant validity measures.

In the second stage, the internal model was evaluated through several tests, first by examining the sign and magnitude of the path coefficients, which examined the

existence of a relationship between the variables, and secondly, the R square was calculated in order to examine the variation between the dependent variable and the independent variable, and thirdly, examine the size effect which helps identifying the independent variables that vary greatly with the dependent variable, fourthly, the predictive accuracy expressed by  $Q^2$  was examined for the support it provides to the predictive model of the study, Fifthly, goodness of fit (GoF) was examined, which indicates The relevance of the data to the study population.

In addition, the mediator variable' analysis was conducted by examining the indirect effect, the specific indirect effects, and the total effect (Hair et al., 2020).

## **Chapter Three**

### **Data Analysis and Results**

#### **3.1 Overview**

This section deals with the results of analyzing the data collected from the trainees of as a questionnaire through analyzing the demographic data of the trainees using the SPSS program, in addition to testing the hypotheses, and examining the relationships between the variables and the reliability of the study model using Smart PLS.

#### **3.2 Harman's Single-factor Test and Common Bias Method**

Harman's single-factor test was used to ensure that there was no problem with regard to the Bias Method (Hair et al., 2020), The results shown in Table (D.2) in the Appendix (D) show that no significant bias was found and the result of the variance was maximal 33.65%, which is an acceptable value according to Podsakoff et al., (2003) because it is less than 50%, and this indicates that this study does not fall under the common issue method variance, and the analysis process can be completed according to these results.

#### **3.3 Analysis of Survey Response**

##### **3.3.1 Response Rate and Demographic Information**

The response rate was 82.65%, as 545 trainees affiliated with VTCs in the West Bank responded to the questionnaires out of 633 questionnaires distributed. Frequency and demographic variables were analyzed using the SPSS program as shown in Table (D.3) in the Appendix (D).

The results related to the demographic factor, the gender of the trainees, show that the percentage of male respondents is 41% and the percentage of females is 59% (Although the number of male trainees is greater than females by 18%, indicating that the female trainees showed a greater desire to respond to this study than males, in addition, some male trainees were unable to fill out the questionnaire due to their preoccupation with practical training for their professions).

The study also included three age groups of trainees: 16-20 years, 21-30 years, and 31 years and above, as shown in Table (D.3) in the Appendix (D), it's clear that the respondents, according to the age group, by 72.7% belong to the age group (16-20), this

increase is justified by the fact that youth group is the main target group of VT programs, as the Ministry of Labor seeks to target the youth group in its programs in an attempt to reduce unemployment rates in this category, and the development of their vocational skills (MOL, 2021; Helal, 2020), followed by the age group (21-30) years with a rate of 20.9%, which includes young people who joined VT during their study or after graduation (Where the results of this category corresponds to the results of the academic qualification factor), As for the category 31 Years and above, the rate was 6.3%, which usually includes unemployed university graduates or professionals who enroll in vocational training in order to develop their professional skills and their own business.

As for the academic qualification of the trainees, the study included 4 categories: those who do not hold a Tawjihi certificate, who hold a Tawjihi certificate only, who are still studying either a diploma or a bachelor's degree, and finally those who hold diplomas, bachelor's degrees, or higher degrees, The results showed that The percentage of trainees who do not hold a Tawjihi certificate, hold a Tawjihi certificate only, the trainees who study in universities and colleges, and who hold diplomas, bachelor's degrees, or higher degrees respectively is 35.2%, 49.8%, 7.2% and 7.8%, Thus, it turns out that the percentage of those enrolled in vocational education who hold certificates and those with educational qualifications (Tawjihi or more) where constitute 64.8% is higher than those who do not hold certificates 35.2%, and this indicates that the society's view began to change towards vocational training and it became popular, and indicates the great trend towards vocational training even from those who chose the academic path at the beginning But at the end joined the vocational training because it is the shortest path to the work world in light of the high unemployment rate in Palestine from those affiliated with the academic track (MOL, 2021; Helal, 2020; MOL, 2022).

There are 10 vocational training centers in the West Bank distributed over 10 governorates, where the percentage of respondents to the questionnaire varied between these centers as a result of the variation and difference in the number of trainees affiliated with these centers as shown in Table (D.3) in the Appendix (D) the results showed that the percentage of trainees filled the questionnaire in Hebron, Jenin and Nablus respectively is 17.1%, 13.4% and 12.8.

As for the specialization variable, the results showed a group of specializations that were included in the sample, knowing that the sample did not include all available specializations in vocational training, due to the arrival of the trainees of some specializations to the practical training and workshops stage, and some are absent and not present in the VTCs due to various circumstances during the period of distributing the questionnaire, The sample include 17 different specializations shown in the attached in Table (D.3) in the Appendix (D) where the response rate to the questionnaire from the specialty of cosmetology and hairdressing for females was the highest (27.4% of the sample), as the field of cosmetics for women is one of the requirements of the current labor market, followed by the specialty of fashion design with a percentage of 9.6%.

### **3.3.2 Descriptive Analysis**

#### **3.3.2.1 Descriptive Analysis of the SERVAQUAL Dimensions**

The questionnaire was initially designed to test the five SERVQUAL dimensions (tangibles, reliability, assurance responsiveness, and empathy) by 22 questions, each question was answered twice, one represents the perception of the service level that the trainees expected before joining the VTC answered with a value from 1 to 5 and symbolizes with E, and the other represents the assessment of the actual and perceived service level that the trainee found after joining the VTC also answered from 1 to 5, This data was placed on the Excel program and SERVQUAL Gap was calculated for all questions to all questionnaires based on the following equation:

$$\text{SERVQUAL GAP} = (\text{Expected quality} - \text{Perceived quality}) \dots \dots \dots (2)$$

As the positive value of the gap indicates that the expected quality of the service is higher than the perceived and the actual quality, and the higher the value of the gap in the positive direction, the worse the quality perceived.

And the negative value of the gap is an indication that the actual quality of service perceived in the VTCs is higher than the expected quality, and the greater the value of the gap in the negative direction, the higher the quality perceived.

This is what was indicated by Almekhlafi & Abdul-Ghani, (2022) and Berry et al., (1998) that the gap expresses the difference between the client's expectations and what

he perceived, and it can be expressed by the equation: expected quality - perceived quality.

The results of the Descriptive Analysis as follows for SARVQUAL dimensions:

### **1. Tangibility Dimension**

In general, the results related to the Tangibility dimension show that the trainees are satisfied with the quality of services in terms of tangibility, where the Table 1 shows the trainees' answers, which were as follows:

- The trainees' answers to the first question (related to the facilities and workshops provided by the VTCs in terms of comfort and safety) showed that 45.85% of the trainees found that the workshops and facilities in the vocational training centers were better than what they expected, 31.77% of whom had the halls, workshops and facilities as they expected. 22.38% of them were below their expectations, and their average answer was (-0.30), which indicates that the perceived service quality is higher than expected.
- The results of the second question related to the availability of clear educational plans and curricula showed that 39.71% of the trainees find that the quality of the curricula and educational plans is higher than what they expected, 38.45% of them found the level of service similar to what they expected, and 21.84% the curricula and plans were below their expectations, and there was a gap between what The trainees' perception and what these centers provided, and the average were)-0.28), which indicates that the perceived service quality is higher than expected.
- In the third question related to the equipment and tools provided by the VTCs to the trainees, the answers of the trainees were mixed, as 36.1% of them answered that the quality of the equipment and tools available was higher than what the trainees had expected, and 34.3% of the trainees found that the equipment and tools were similar to what they expected and 29.6% found that the curricula and plans were equal to level of their expectations, and their average were (-0.05), which indicates that the perceived service is identical to what the trainees expected, despite the great difference in terms of supplies and equipment between one center and the other.
- In the fourth question related to the training staff who provides training services in the VTCs, 41.9% the trainees answered that the level of the training staff is higher

than what they had expected, and 38.6% of them answered that the training staff was similar to what they expected, and 19.5% found that the training staff was below the level of their expectations, and the average of their answers was (-0.34), which indicates that the perceived service quality is higher than what the trainees expected.

- In the fifth statement related to the suitability of the services provided to the trainees with the labor market, 36.3% answered that the services are suitable for the labor market and more than what the trainees had expected, and 44.0% found that the fit between the services and the labor market was similar to what they expected, and 19.7% found that the services were below the level of their expectations and not appropriate to the labor market, and the average of their answers was (-0.21), which indicates that the perceived service is higher than what the trainees expected.

**Table 1**

*Tangibility Descriptive analysis*

Tangibility Statements	Higher than expected	As Expected	lower than expected	Average	STD
	From -1 to -4	0	From 1 to 4		
Safe and appropriate facilities, workshops and halls in the VTCs	45.85%	31.77%	22.38%	-0.30	1.27
Clear plans and curricula for the training	39.71%	38.45%	21.84%	-0.28	1.26
Equipment and tools	36.10%	34.30%	29.60%	-0.05	1.54
Training staff	41.88%	38.63%	19.49%	-0.34	1.26
The suitability of services to the labor market	36.28%	44.04%	19.68%	-0.21	1.26

## 2. Reliability Dimension

The reliability dimension was measured through 4 statements in the questionnaire where the trainees answered what they expected and what they actually found from the services provided by the VTCs in terms of reliability dimension.

Table 2 shows the result of analyzing the statements which is as follows:

- The trainees answers to the first statements which is related to the commitment to training times shows that a high percentage of the trainees 36.64% found that the

VTCs adhere to and respect the training times, 38.27% of the trainees answered that the centers' commitment to working and training hours matches their expectations, and 25.09% of them found that the center's commitment to working hours was lower than their expectations, so the gap is negative with an average (-0.15) which expresses that the quality of the services was equal to and exceeds what most trainees expect.

- Quick problem solving statement results indicates that the majority of trainees trust the VTCs in terms of solving the problems they face quickly, as 37.73% of the trainees believe that the VTCs solve problems more quickly than they expected, 40.79% answered that what they found in the VTCs with regard to quickly problems solving was in line with their expectations, and 21.48% saw that the VTCs are unable to solve problems quickly, so the average of the answers which represented by the value (-0.23) shows that the gap is negative and the actual level of service quality is higher than the expected quality.
- The third statement results related to commitment to promises indicate that the majority of trainees trust vocational training centers in terms of fulfilling the promises, as 36.82% of the trainees believe that the VTCs fulfill their promises antithesis to what was expected, 37.55% found that the VTCs' commitment to promises as expected, and only 25.63% did not see that the VTCs able to commitment their promises, the level of quality of this service is equal and slightly higher than the expectations of the trainees, as shown by the negative gap value (-0.08) which is the average of the trainees answers.
- The results of analyzing the fourth statement which is related to information and records preservation indicates that the majority of trainees trust the VTCs in terms of saving data and information and the possibility of information retrieving and obtaining, where the result shows that 38.99% believed that the level of quality of service provided in terms of retaining and accessing information exceeds their expectations, and 35.92% found this service as expected, and 25.09% believe that the service is lower than expected, so the average (the gap) is (-0.14) and the level of quality of this service is equal and slightly higher than the expectations of the trainees.

In the overall result analyzing of the reliability dimension show that the trainees trust the VTCs and that the level of service quality provided is equal to and slightly exceeds what the trainees expect.

**Table 2**

*Reliability Descriptive analysis*

Reliability Statements	Higher than expected	As Expected	lower than expected	Average	STD
	From -1 to -4	0	From 1 to 4		
Commitment to training times	36.64%	38.27%	25.09%	-0.15	1.36
Quick problem solving	37.73%	40.79%	21.48%	-0.23	1.39
Commitment to promises	36.82%	37.55%	25.63%	-0.08	1.36
Information and records preservation	38.99%	35.92%	25.09%	-0.14	1.36

### 3. Responsiveness Dimension

The responsiveness dimension was measured through 4 statements in the questionnaire where the trainees answered what they expected and what they actually found from the services provided by the VTCs in terms of responsiveness dimension.

Table 3 shows the result of analyzing the statements which is as follows:

- The results of analyzing the first statement in this section which is related to the appropriateness of the service and rapidity of providing it shows that 37.18% of the trainees believe that the response speed in providing the service and the appropriateness of the service provided is higher than what they expected, and 34.66% indicate that the response speed of providing the service is similar to what they expected, while 28.16% of the trainees saw that the level of response speed and the appropriateness of the service provided was lower than expected, so this results show that the VTCs provide their services quickly and commensurate with the trainings and their requirements, as the average (the gap) is (-0.06) which indicate that the level of quality of this service is equal and slightly higher than the expectations of the trainees.

- For second statement that related to clear schedules and direct communication with the VTCs employees in case of changing the time of providing the service, the results shows that 37.91% of the trainees believe that communication and the process of scheduling training times are better than what was expected, and 42.06% indicated that this service is similar to what was expected, while 20.04% believed that communication with employees was bad and was lower than expected, as the average of their answers and the gap is (-0.26), which indicates the effective communication of vocational training centers and their ability to Reschedule the provision of its services in case of any delay or change, and the level of quality of this service is equal and higher than the expectations of the trainees.
- The results from the third statement which is related to the presence of the crew of the VTCs at all times in service and providing immediate assistance if required shows that 39.17% of the trainees acknowledged that the crew was always in service and that they provided immediate assistance, which is the opposite of their expectations, and 43.50% had equal expectations with what they actually found in the VTCs with regard to this service, while 17.33% saw that the employees of this centers were not always available for assistance and the level of response was less than expected, so the average is (-0.31) which indicate that the VTCs employees are always ready to provide help and this service quality is higher than what was expected.
- The results from fourth statement which is related to measuring the extent of effective and direct response to trainees' requests by vocational training center employees shows that 36.64% of the trainees found that the level of this service was higher than their expectations and that the employee's response to the trainee's requests was quick and immediate, and 37.18% rated the service as meeting their expectations, while 26.17% expected a higher level of service than what it is in reality, and the average of their answers is (-0.11) which indicate that the gap is negative and that the level of quality of this service is equal and slightly higher than the expectations of the trainees.

**Table 3***Responsiveness Descriptive analysis*

Responsiveness Statements	Higher than expected	As Expected	lower than expected	Average	STD
	From -1 to -4	0	From 1 to 4		
Quick and appropriate services	37.18%	34.66%	28.16%	-0.06	1.50
Clear schedules and direct communication	37.91%	42.06%	20.04%	-0.26	1.35
Providing immediate assistance	39.17%	43.50%	17.33%	-0.31	1.28
An immediate and effective response to requests	36.64%	37.18%	26.17%	-0.11	1.46

**4. Assurance Dimension**

The assurance dimension was measured through 4 statements in the questionnaire where the trainees answered what they expected and what they actually found from the services provided by the VTCs in terms of assurance dimension.

Table 4 shows the result of analyzing the statements which is as follows:

- The results of analyzing the first statement in this section which measures the trainees' confidence in the quality of service provided by the VTCs shows that 40.07% of the trainees are confident that the VTCs provide services with high quality and that the level of this quality is better than what they expected, And the confidence of 39.17% of them in the quality of the provided services is equal to their expectations, while 20.76% of them had more confidence in the level of quality provided than its actual quality and level, so the average is (-0.28) which indicate that the gap is negative and the quality is higher than what was expected by the trainees.
- The Analysis of the second statement that measures the extent of the trainees' feeling of safety in their dealings with the employees of vocational training centers showed that 37.91% of them found safety in their dealings with the employees more than what they expected, and that 46.39% found the level of security as they expected, while 15.70% of them did not feel safe in their dealings with the employees and the

level of safety was lower than their expectations, the negative gap is (-0.31) which is indicate that the level of safety in dealing with the employees is higher than expected.

- The results of the analysis of the third statement related to the respect of the employees in the VTCs for the trainees from their point of view showed that 33.03% of the trainees felt respect during their dealings with the employees of the VTCs and the level of respect was higher than their expectations and that 44.95% of them found the respect they expected while 22.02% of the trainees found the employees less Respect in their dealings than what they expected, so the gap is negative and its value is)-0.11), which indicates that the largest percentage of the trainers and employees deal with the trainees with respect and that the level of quality of this service is equal and slightly higher than the expectations of the trainees.
- The results of analyzing the fourth statement, which measures the knowledge possessed by the trainers in VTCs and whether they are qualified or not from the trainees' point of view, showed that 33.21% of the trainees found the trainers more qualified than what they expected, and that 50.72% of them found the qualifications of the employees as they expected, while 16.06% of them They found the employees less qualified than their expectations, so the gap is negative and its value is (-0.24), which indicate that the quality of this service is equal and higher than what was expected.

**Table 4**

*Assurance Descriptive analysis*

Assurance Statements	Higher than expected	As Expected	lower than expected	Average	STD
	From -1 to -4	0	From 1 to 4		
Trainees' confidence in the quality of service provided by the VTCs	40.07%	39.17%	20.76%	-0.28	1.34
Trainees' feeling of safety in their dealings with the employees of the VTCs	37.91%	46.39%	15.70%	-0.31	1.25
VTCs staff tactfully dealing	33.03%	44.95%	22.02%	-0.11	1.35
VTCs staff are qualified and knowledgeable	33.21%	50.72%	16.06%	-0.24	1.11

## 5. Empathy Dimension

The empathy dimension was measured through 4 statements in the questionnaire where the trainees answered what they expected and what they actually found from the services provided by the VTCs in terms of empathy dimension.

Table 5 shows the result of analyzing the statements related to the empathy dimension which is as follows:

- The result of analyzing the first statement which is related to the employees giving attention to the trainees individually, each trainee separately, showed that 42.60% of the trainees found more attention from the employee individually than what was expected, and that 35.56% of them found this service at the level of their expectations, while 21.84% found that the employee does not pay attention to the trainee individually as expected, and here the negative gap value is (-0.27) and indicate that the quality of this service is higher than expected and that these centers give attention to each trainees individually from the point of view of most of the trainees.
- The second statement results which is related to the extent of personal interest in the trainee and providing what he needs showed that 36.46% of the trainees found personal attention and their requests were met, and this was beyond their expectations, and that 42.24% of them found attention equal to what they expected, while 21.30% expected more personal attention than what they found in these centers, so the average of their answers is (-0.16) and this negative gap indicate that the quality of this service is equal and higher that what expected.
- The analysis of the third statement related to evaluating the prevailing atmosphere in vocational training centers showed that 35.92% of the trainees found the atmosphere friendlier than what they expected, and 44.22% of them found the prevailing atmosphere as they expected, while 19.86% of them found the atmosphere less than expected, so the gap is negative and its value is (-0.19), which indicates that the employees of the centers deal in a friendly manner, which makes the atmosphere more friendly, and this matches what they expected and exceeds their expectations.
- The results of the analysis of the fourth statement related to the appropriateness of training hours and practical exercises with the trainees' time showed that only 29.60% of the trainees consider that the applied training hours are appropriate and

more than what they expected, which is a result that is considered small compared to the previous results of the previous statements, and 48.01% considered that it is appropriate and equal to what they expected, which is the largest percentage of the trainees who were surveyed in contrast to 22.38% of The trainees who were included in the questionnaire said that the working hours are not appropriate and that they are less than expected. The gap for this statement, which is (-0.02), shows that the training times in terms of suitability for the trainees were as expected, this value is considered lower than the previous values, with the importance of commensurate training times with respect to the empathy dimension.

**Table 5**

*Empathy Descriptive analysis*

Empathy Statements	Higher than expected	As expected	lower than expected	Average	STD
	From -1 to -4	0	From 1 to 4		
Trainers giving attention to each trainee individually	42.60%	35.56%	21.84%	-0.27	1.34
VTCs staff give personal attention and meet the trainees needs	36.46%	42.24%	21.30%	-0.16	1.32
The atmosphere of training in VTCs is friendly	35.92%	44.22%	19.86%	-0.19	1.30
The appropriateness of training hours and practical exercises with the trainees' time.	29.60%	48.01%	22.38%	-0.02	1.30

**3.2.2.2 SERVQUAL Analysis for each VTC**

The quality of services was evaluated by SERVQUAL dimensions for each of the vocational training centers, as the results showed variation in the quality of services provided in each center.

Figure 4, which shows the results of assessing the quality of services in terms of the tangibility dimension and the tangibility gap, as it showed that the level of quality is good and exceeded the expectations of the trainees in terms of this dimension, except for Beit Jala center, where the value of the gap is in the positive direction, which

indicates that the quality of its services is poor in terms of tangible dimension, while the value of the gap for each of Hebron and Yatta centers shows that the services provided in them are of high quality and that they are the best centers VTCs in terms of services.

**Figure 4**

*The Tangibility Gap according to the location of the center*

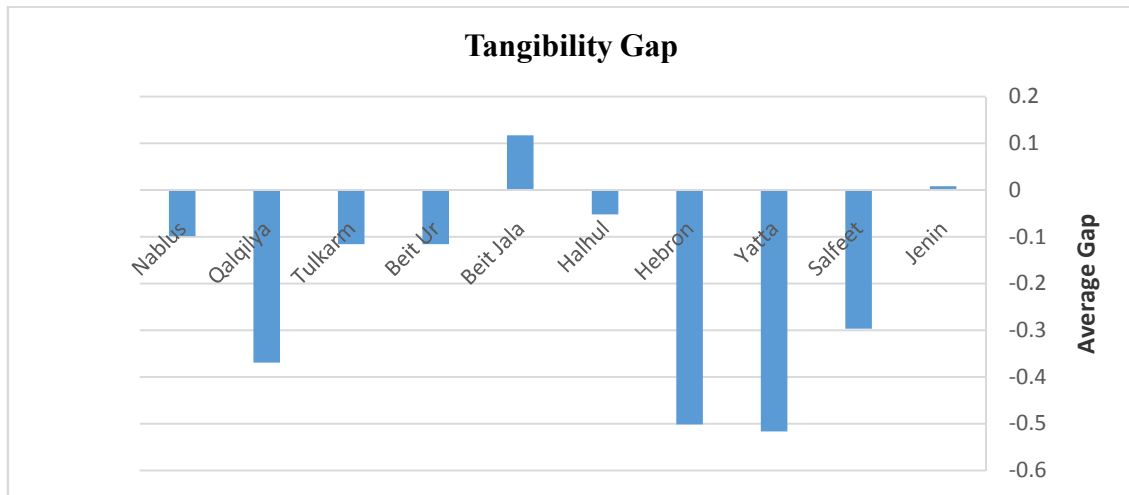


Figure 5 shows an assessment of the quality of services in terms of the reliability dimension and the reliability gap, which shows that in most centers the quality of services is good in terms of this dimension and that it is equal to and exceeds the trainees' expectations. However, in centers such as Jenin, Beit Ur, and Beit Jala, the trainees' assessment indicated that the quality of service provided in terms of tangibility is poor, and Beit Ur is considered the worst.

**Figure 5**

*The reliability gap according to the location of the center*

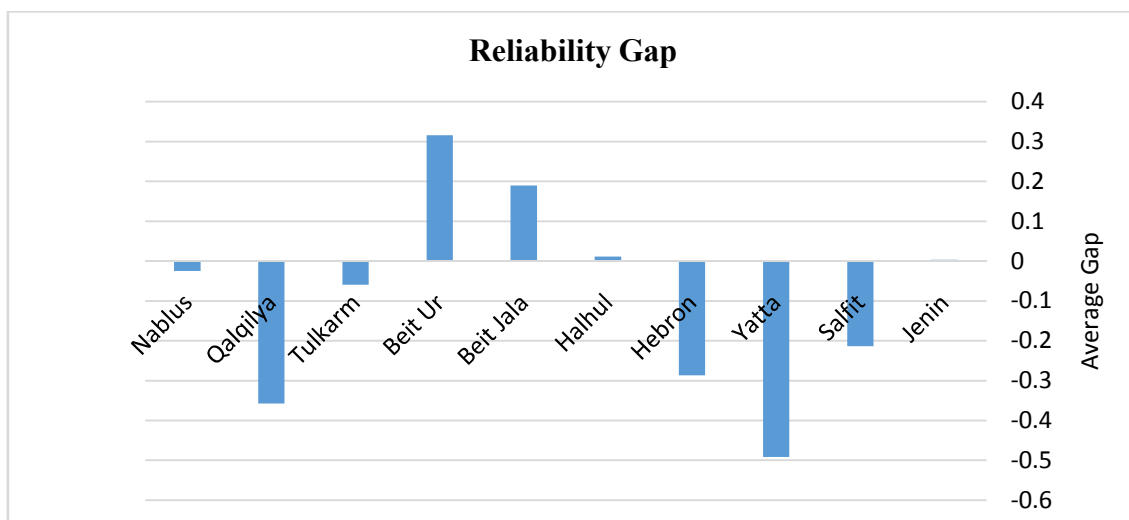


Figure 6 shows an assessment of the quality of services in terms of responsiveness dimension and responsiveness gap, which shows the variation in the quality of services provided in different centers, the majority of these centers serve good quality services in terms of this dimension, but in centers such as Jenin, Tulkarm and Beit Ur, the value of the gap was high in the positive direction, and this means that the quality of the service provided is poor and that the trainees were expecting better services than what these centers provided, Jenin center is the worst, while Salfeet, Yata and Hebron centers are the best in terms of quality of services.

**Figure 6**

*The Responsiveness gap according to the location of the center*

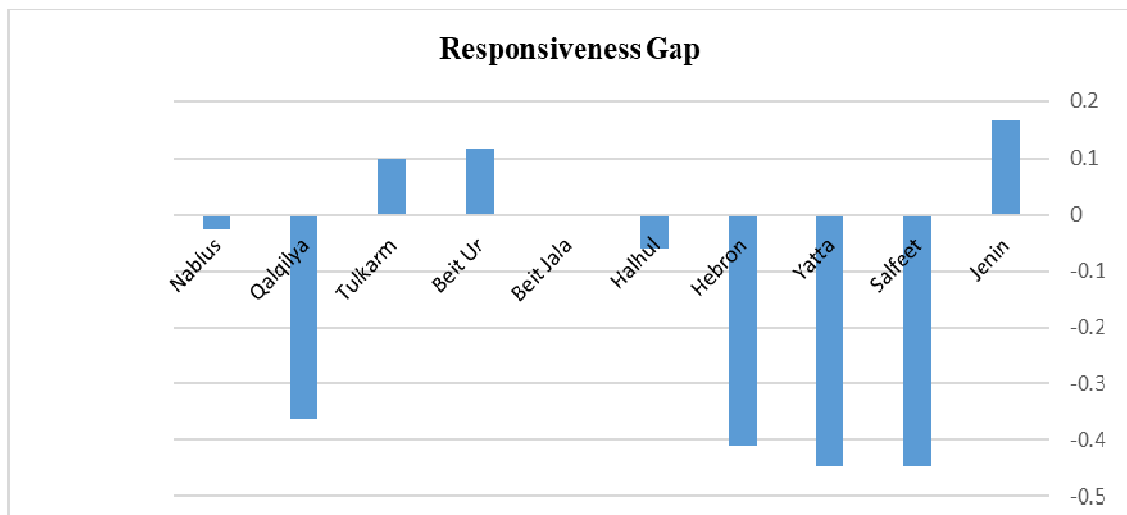


Figure 7 shows the assessment of the quality of services in terms of the assurance dimension and the assurance gap, which shows that the vocational training centers, except for the Jenin center, provide services of good quality and suit the trainees, and that they are higher than the expected quality, while the Jenin center services are considered poor in terms of this dimension.

**Figure 7**

*The Assurance gap according to the location of the center*

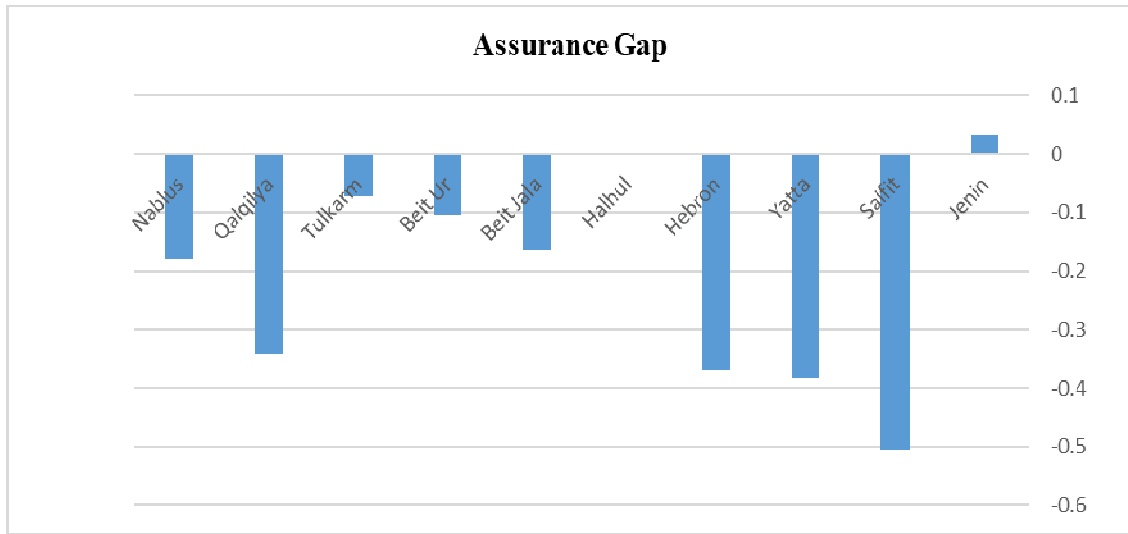
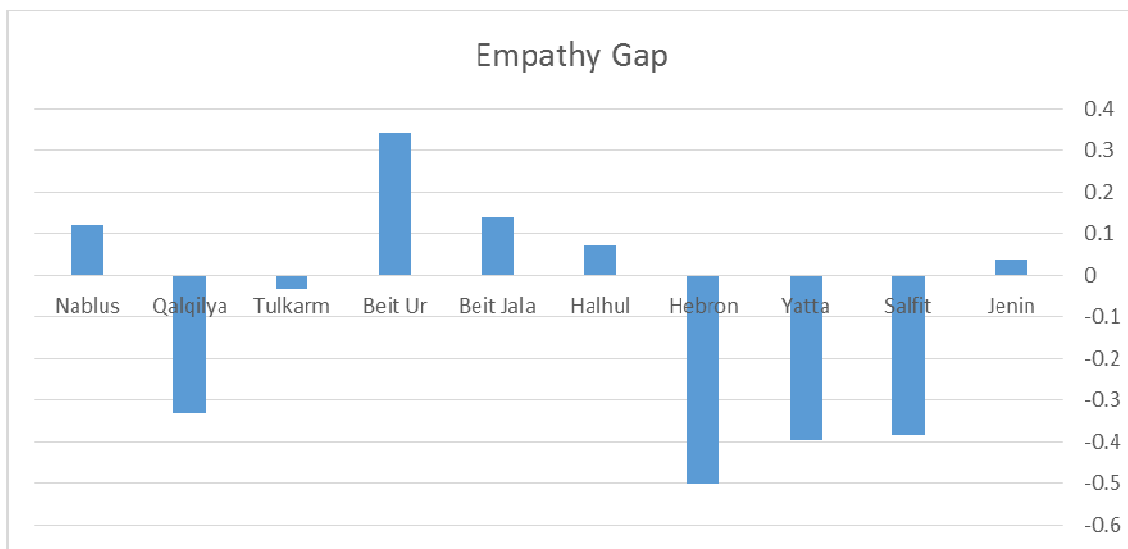


Figure 8 shows the evaluation of the quality of services in terms of the empathy dimension and the empathy gap, which shows that 5 of the vocational training centers: Salfit, Yatta, Hebron, Tulkarm and Qalqilya, the quality of their services evaluated as good and that they are equal or higher than the trainees expectations, while the centers: Jenin, Beit Jala, Beit Ur, Halhul and Nablus, the quality was evaluated in terms of this dimension as being bad, and there is a gap between the actual quality and what the trainees expected, and Beit Ur Center is considered the worst.

**Figure 8**

*The Empathy gap according to the location of the center*



In general, the results of data analysis showed that the quality of services provided in most VTCs is good and equal to or more than the expectations of the trainees and those affiliated with these centers, however, it appears from the results that there is a gap in the positive direction in some dimensions, which indicates that the quality of services in these center's is lower than expected and It is considered somewhat unsatisfactory compared to the results of other centers, the results of which showed that there are no gaps in the services provided in any of the dimensions, such as Qalqilya, Hebron, Salfeet, and Yatta..

Differences can be seen in the quality of services provided in the different VTCs and this indicates the lack of standardization of service delivery procedures and the absence of specialized quality departments to provide unified service at the same level in all vocational training centers (Helal, 2020; ETF, 2020).

### **3.3.2.3 SERVQUAL Gap Analysis Summary**

Table 6 shows the results of the measures of each dimension of SERVQUAL represented by the statements related to each dimension, and the average gap expressed by the trainees, which is represented by the difference between the quality of services provided in VTCs and the expected quality of these services, where the results of using the SERVQUAL dimensions in assessing the quality of services provided in VTCs showed that the quality of actual services is higher than the expectations of the trainees, as the average Gap in the tangibility dimension represents a negative value of (-0.24), which indicates that the quality of tangible services in the VTCs is higher than the quality expected by the trainees. Likewise, the average Gap in the assurance dimension has a negative value of (-0.23), meaning that the trainees generally feel safe and cared for in receiving services, and this is followed by the responsiveness dimension, where the Gap was represented by a negative value of (-0.18), which indicates that the reality of response in meeting services and counseling exceeded the expectations of the trainees, as well as the average Gap in the dimension of The empathy value was negative, represented by the value (-0.16), which means that the VTCs provide personal interest and sympathy to the trainees and take care of each trainee in particular, as for the reliability dimension, the average Gap is equal to the negative value (-0.15), which means that the trainees can rely and trust the services provided in the training centers. In general, VTCs provide services of good quality and meet the needs of their members.

**Table 6***SERVQUAL Gap analysis summary*

		Mean	Std. Deviation		Dimension Average
Tangibility	Tan1-P	4.09	0.967	Tan-P	4.06
	Tan1-E	3.79	0.877		
	Tan1-Gap	-0.30	1.271		
	Tan2-P	4.11	0.991		
	Tan2-E	3.82	0.951		
	Tan2-Gap	-0.28	1.260	Tan-E	3.82
	Tan3-P	3.84	1.237		
	Tan3-E	3.80	1.041		
	Tan3-Gap	-0.05	1.543		
	Tan4-P	4.14	1.051		
	Tan4-E	3.80	1.006	Tan -Gap	-0.24
	Tan4-Gap	-0.34	1.260		
	Tan5-P	4.12	1.084		
	Tan5-E	3.90	0.995		
	Tan5-Gap	-0.21	1.261		
Reliability	Rel1-P	4.11	1.102	Rel-P	4.04
	Rel1-E	3.96	1.046		
	Rel1-Gap	-0.15	1.356		
	Rel2-P	4.14	1.140	Rel-E	3.89
	Rel2-E	3.91	1.053		
	Rel2-Gap	-0.23	1.387		
	Rel3-P	3.75	1.160		
	Rel3-E	3.67	1.023	Rel-Gap	-0.15
	Rel3-Gap	-0.08	1.358		
	Rel4-P	4.16	1.068		
Rel4-E	4.02	0.945			
Rel4-Gap	-0.14	1.365			
Responsiveness	Res1-P	3.74	1.178	Res-P	3.95
	Res1-E	3.68	1.050		
	Res1-Gap	-0.06	1.503		
	Res2-P	4.09	1.145	Res-E	3.77
	Res2-E	3.83	1.050		
	Res2-Gap	-0.26	1.346		
	Res3-P	4.19	1.081	Res-Gap	-0.18
	Res3-E	3.88	1.030		
	Res3-Gap	-0.31	1.275		
Res4-P	3.80	1.191			
Res4-E	3.69	1.064			
Res4-Gap	-0.11	1.463			
Assurance	Ass1-P	4.05	1.066	Ass-P	4.17
	Ass1-E	3.77	1.067		
	Ass1-Gap	-0.28	1.345		
	Ass2-P	4.30	1.055	Ass-E	3.94
	Ass2-E	3.99	0.994		
	Ass2-Gap	-0.31	1.250		
	Ass3-P	4.09	1.193	Ass-Gap	-0.23
	Ass3-E	3.98	1.064		
	Ass3-Gap	-0.11	1.352		
Ass4-P	4.25	1.013			
Ass4-E	4.01	0.987			
Ass4-Gap	-0.24	1.111			
Empathy	Emth1-P	3.99	1.165	Emth-P	3.91
	Emth1-E	3.72	1.106		
	Emth1-Gap	-0.27	1.341		
	Emth2-P	3.86	1.139	Emth-E	3.74
	Emth2-E	3.70	1.066		
	Emth2-Gap	-0.16	1.319		
	Emth3-P	3.92	1.149	Emth-Gap	-0.16
	Emth3-E	3.73	1.045		
	Emth3-Gap	-0.19	1.300		
	Emth4-P	3.86	1.260		
Emth4-E	3.80	1.145			
Emth4-Gap	-0.02	1.285			

### **3.3.2.4 Descriptive Analysis of the Trainees Competency and Employment**

A descriptive analysis was conducted for Trainees Competency, which represents the mediator variable, in order to measure the impact of the SERVQUAL dimensions on the Trainees Competency and the effect of Trainees Competency on the Employment variable, where the questionnaire included 4 statements to measure the competency, in addition, the Employment variable, which represents Dependent, was measured to determine the extent to which employment is affected by the quality of services provided and what is the role of the mediator variable, which is the trainees competency in that?, the questionnaire also included 3 statements related to employment.

A Likert scale of five points of equal size was used to measure the variables of the trainees' competency and employment, based on the equation:

The length of the period = (the highest weight - the lowest weight) / (3 levels).

Where the values between (3.67-5) are considered high, and between (2.34-3.66) is a medium result, and from 1 to 2.33 is a low result.

As shown in Table 7, the results of analyzing the answers to the statement related to competency show that the average of their answers is high and lies between 3.66 and 5, Which indicates that the trainees believe that their competencies, skills, abilities, and the quality of their practical work have developed through the training provided by the VTCs, this corresponds with the results of the SERVQUAL analysis, through which the trainees expressed that the level of quality in the five dimensions was equal to and more than what they expected.

**Table 7***Trainees Competency Descriptive analysis*

<b>Trainees Competency Statements</b>	<b>Average</b>	<b>STD</b>	<b>Result analysis</b>
The development of vocational abilities and skills of trainees after joining the VTCs	4.28	0.857	High
The Trainings simulate real work situations that developed the personal, technical and social competencies of the trainees	4.10	0.906	High
The trainees have the ability to carry out work with perfection and high quality	4.12	0.925	High
The efficiency of the trainees increased after receiving training from highly qualified trainers.	4.12	0.959	High

As for the employment variable, the results shown in Table 8 showed that the average of answers to the statements related to employment was high, which indicates that the majority of trainees see the services provided by the VTCs as containing plans, meetings and procedures that will contribute to their employment in the end, and the majority of them answered by expecting to get jobs for a fee material at the end of the trainings, which is consistent with their answers that the services provided by the VTCs meet their expectations and increase their competencies, competencies and skills so that they can obtain job opportunities at the end of the trainings.

**Table 8***Employment Descriptive analysis*

<b>Employment Statements</b>	<b>Average</b>	<b>STD</b>	<b>Result analysis</b>
The training includes meetings with employers, and commerce and employment officials to help the trainees find a job opportunity	3.85	1.056	High
The training plan includes practical training in the labor market that will help in finding a job opportunity.	4.16	0.963	High
At the end of the training, the trainee is expected to get a job in the labor market, or work independently in the profession that he joined in the VTCs for a fee.	4.27	0.936	High

### **3.4 The PLS-SEM Analyses**

In this section, the PLS Partial Least Squares approach was used by using the Smart-PLS4 program in the process of analyzing the relationships between the constructs, and evaluating each of the outer measurement model and the inner structural model (Joe F. Hair et al., 2020; Asyraf, 2014).

In the measurement model, the relationships between the indicators and the construct are either formative or reflective, and the indicators in the reflective has a great convergence between them. Therefore, the associated indicator can be deleted in the construct because it is “correlated” to each other, but in the case of the formative it is not possible to delete any Indicator because the indicators form the construct, so if any Indicator is deleted, the construct will change.

The Smart-PLS 4 program supports the analysis of both models, formative or reflective, in this study, the model was built as a Higher Order Model (reflective–formative construction), where the SERQUAL dimensions were expressed as exogenous variable), and trainees competency and employment were represented as endogenous variables, the services quality variable was adopted as High Order formative Construct (HOC), and the SERVQUAL dimensions variables were adopted as Low order construct (LOC) and reflective constructs as shown in Figure 9.

The measurement model was evaluated in the first stage and then moved to the second stage, which is the evaluation of the structural model.

#### **3.4.4 First Stage-Measurement Model Assessment (Outer Model)**

The Measurement Model Assessment was performed to measure all the variables contained in the model by examining the reliability represented by whether the expressions that were developed to measure the required variable can be measured under multiple conditions, and checking the validity represented by examining the measurement tool (questionnaire statements) if it has the ability to measure the variable that you are designed to measure.

In this study, the following tests were used to examine the reliability and validity:

- Convergent validity by carrying out:
  - The individual item reliability which called factor loading.

- Composite reliability.
- Average variance extracted.
- Discriminate validity examined by:
  - Cross loading.
  - Fornell & Larcker criterion.
  - Heterotrait-Monotrait ratio of correlations (HTMT).

#### **3.4.4.1 Convergent Validity**

The Convergent Validity used to check the correlation, closeness, and compatibility of the measure (statements) with other measures of the same construct and to determine the degree of their correlation:

##### **1. Individual Item Reliability (Factor Loadings)**

To perform the factor loading test, the outer loading should be measured for all the Indicators, and its value should be greater than 0.708 (Joe F. Hair et al., 2020; Kwong-Kay Wong, 2013), through Figure 9 and Table (D.3) in Appendix (D), and from the values between the indicators and the variables, the results of the Factor Loadings test showed that all the measurement elements exceeded the acceptable limit, which is 0.708, and this indicates that all the scales used are reliable and close.

##### **2. Composite Reliability (CR)**

In order to check the inner consistency, the composite reliability test should be done, and it is considered an alternative to the Cronbach Alpha measurement, where the Composite Reliability is more accurate, and the value should be  $0.7 < CR < 0.95$  (The higher the CR value of the indicator, the more reliable the value (Joe F. Hair et al., 2020; Asyraf, 2014), Table (D.4) in Appendix (D) showed that all values were higher than 7, so the construct reliability was achieved.

For additional verification of the Composite Reliability values, Cronbach's Alpha value was found, which is one of the criteria used in the examination of inner consistency, as the results of the examination, as shown in Table (D.4) in Appendix (D), exceeded 0.7, which is the limit by which the Cronbach's Alpha criterion is considered acceptable (Asyraf, 2014; Joe F. Hair et al., 2020).

### **3. Average Variance Extracted (AVE)**

For Average Variance Extracted, values higher than 0.5 are acceptable and indicate the existence of coherence and consistency of the scale as the value increases, And a lower values indicates an increase in the variance relative to the scale (Asyraf, 2014; Joe F. Hair et al., 2020), as shown in Table (D.4) in Appendix (D), the value of AVE is higher than 0.5, and all are acceptable and close values, indicating that latent variables can, on average, explain more than 50% of the variance of its indicators

#### **3.4.4.2 Discriminant Validity**

The Discriminant Validate expresses the degree of divergence and dissonance of the statements (indicators) logically, and that the indicators do not contain repetition or overlap between them, which ensures that the indicator relationship with the construct associated with it is considered the strongest relationship (Joe F. Hair et al., 2020).

Discriminant Validity was tested by:

##### **1. Cross Loading**

To achieve discriminant validity, cross loading is one of the most important tests that are used to find out if the outer loadings for each construct are higher than the outer loadings in the indicator's connection to the other construct, and if there is a connection between the indicator with another construct that is not associated with it, which is called cross loading then the model build is re-evaluated (Henseler et al., 2009).

When conducting the Cross Loading test on the model of this study, the results shown in the Table (D.5) in Appendix (D) showed that each indicator is linked to its constraint with the highest correlation value than any other contracts and there is no overlap between them.

##### **2. Fornell & larcker Criterion**

The Fornell & larcker criterion is one of the commonly used criteria to verify Discriminant Validate by evaluating the degree of joint variance of constructs, and the Fornell & larcker criterion requires that the AVE value of the contract is higher than the value of the association with any of the other contracts, when this is achieved, the Discriminant Validity is verified Asyraf, (2014) and Kwong-Kay Wong, (2013), testing

the Fornell & Larcker criterion, as shown in Table (D.6) in Appendix (D), with the intersection of each column with the same row, each of the variables has the largest variation with itself when compared with other variables.

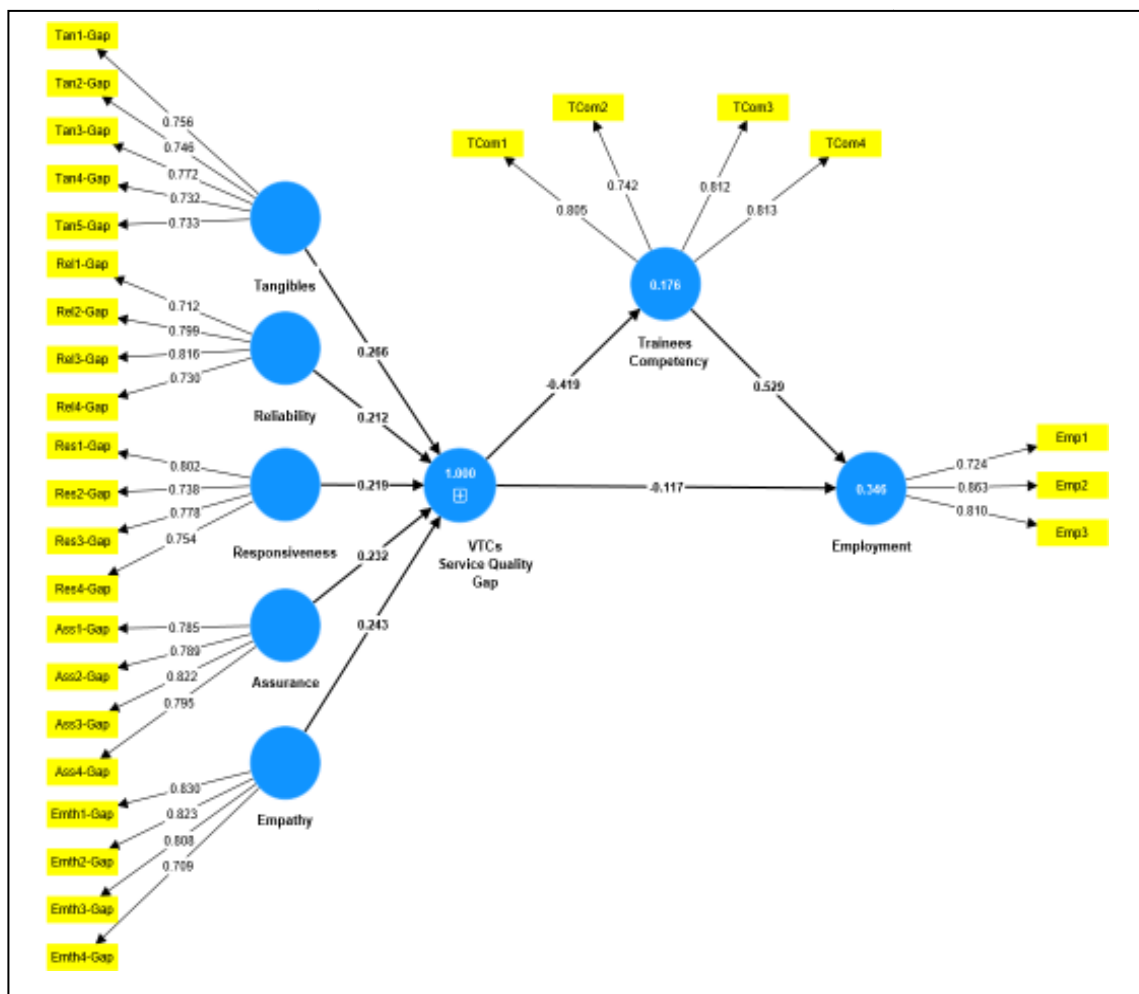
### 3. Heterotrait-Monotrait ratio of correlations (HTMT)

The HTMT standard is used to evaluate the discriminant validity, through which the similarity between the construct is tested, where the value is considered acceptable when it is less than 1 (Henseler et al., 2015), as shown in Table (D.7) in Appendix (D), when the HTMT test was performed on the study model, all values were less than 1, so the discriminant validity was also achieved in the HTMT test.

After conducting these tests, it was found that the constructs exhibit discriminant validity in the model of this study.

**Figure 9**

*Assessment Measurement Model*



### **3.4.5 Second Stage-Structural Model Assessment (Inner Model)**

After completing the first stage of reliability and validity tests through Measurement Model Assessment, the second stage is represented by the Structural Model Assessment, where 5 tests were conducted to confirm and examine the Structural Model (Joe F. Hair et al., 2020), which is as follows:

- Coefficient determination -R square.
- Effect size -F square.
- Productive relevance - Q square.
- Test for Multicollinearity
- Goodness of fit of the model (GoF)
- Standardized Root Mean Square Residual (SRMR)
- Hypothesis Testing (Path Coefficient).
- Mediation Analysis.

#### **3.4.5.1 Coefficient Determination -R Square**

The value of coefficient determination is usually between 0 to 1, and it expresses the ratio of the variance explained by the independent variable to the dependent variable, and is this variance regular and stable in relation to the independent variable, and the more the relationship of the variables is correlated, the greater the value of  $R^2$ .

According to Falk & Miller, (1992),  $R^2$  values are acceptable if  $R^2 \geq 0.1$ , and Hair et al., (2023) classified  $R^2$  that if the  $R^2$  is less than 0.25, it's consider as weak, and from 0.25 to 0.5 is a medium value, and from 0.50 to 0.75 is a high value, but Cohen, (1988) consider the value of  $R^2$  from 0.02 to 0.13 as weak, and from 0.13 to 0.26 as a medium value, and if it is greater than 0.26, it is high value.

According to Table (D.8) in Appendix (D), in which the results of the coefficient determination variance statistics are shown, the value of  $R^2$  is greater than 0.10, so it is acceptable and is between weak and medium according to Hair et al., (2023) and medium and high according to Cohen, (1988).

### **3.4.5.2 Effect size -F square**

The F square expresses the change in the R square when the independent variable is deleted, according to J. F. Hair et al., (2020) and Chin W, 1998), the effect size expresses the relative effect size on the dependent variable by the independent variable specified.

Since the value of F square is 0.02, then the effect size is weak, and if it is 0.15, then the effect size is medium, and if the value is higher than 3.5, then the effect size is large.

Table (D.9) in Appendix (D) shows the results of the effect size test of the study model, where the Trainees Competency showed that the effect size was large on the Employment, and VTCs Service Quality Gap showed that the effect size was medium on Trainees Competency.

### **3.4.5.3 Productive Relevance - Q square**

Also called predictive power, this test is used to check whether a model has predictive relevance or not, where the model has predictive relevance and the independent variable can predict the dependent variable if the test result is above zero.

Given the values shown in Table (D.10) in Appendix (D), all Q2 values are above zero, so the model has predictive power.

### **3.3.5.4 Test for Multicollinearity**

Due to the presence of a relationship between the variables, a test for Multicollinearity was conducted by examining the Variance Inflation Factor VIF, and through the results shown in the Table (D.11) in Appendix (D) the values of the Variance Inflation Factor VIF appear less than 2.5. Therefore, the sum of the values of the VIF is acceptable which it less than 3 is according to (Hair et al., 2020).

### **3.3.5.5 Goodness of Fit of the model (GoF)**

The GoF is considered a statistical test that examines the relevance of the data collected through the sample and if this data obtained from this sample is consistent with the population, so it can identify whether there is a possibility of relying on the study model, whether in the measurement model or the structure model.

The GoF can't be calculated through the Smart-PLS, but it can be calculated through the equation:

$$GoF = \sqrt{R^2 \times AVE} \dots\dots\dots(3)$$

$$GoF = \sqrt{0.261 \times 0.61} = 0.39\dots\dots\dots(4)$$

As the GoF is equal to 0.39, therefore, the study model is large Goodness of Fit based on the classification of Wetzels et al., (2009) of the Goodness of Fit values, where the value classified as a large of fit when its larger than 0.36, and the study model can be relied upon.

**3.3.5.6 Standardized Root Mean Square Residual (SRMR)**

The value of the SRMR was checked to ensure that the model achieves the absolute measure of (model) fit criterion, and its value was 0.092, which is less than 0.1 and acceptable according to (Hu & Bentler, 1999). Therefore, the model is considered fit

**3.4.5.7 Hypothesis Testing (Path)**

The Path Coefficient expresses the hypothetical relationships between the variables, and based on its value, the strength of the relationship is determined and whether this relationship is positive or not. The value of the Path Coefficient ranges from -1 to 1, where the closer the value of the Path Coefficient to -1, means that there is a strong negative relationship. The closer the value to 1, means a strong positive relationship.

Path coefficient values are obtained through the Smart-PLS program through the Bootstrapping process, where the sample was multiplied 5000 times at Significance level 0.05, the P-value also results from this process which represents the probability of error in the relationship between the variables, and its value must be less than 0.05 to accept the existence of a relationship, this process also results the T-value, and the Standard deviation value (STDEV), Table 9 and Figure 10 shows the results of the Hypothesis Testing (Path Coefficient) for the main hypotheses, as it shows that all paths are significant at the 0.05 level. Therefore, the results support all the main hypotheses that were developed in this study, these results also show that the direct relationship between the VTC Service Quality Gap and Employment is a statistically significant relationship at a significant level (P<0.05), and it's a relationship with a negative effect,

as indicated by the value of Standard  $\beta$ , this relationship is considered weak compared to the indirect relationship between them, the path of which passes through the trainees competency (VTCs Service Quality Gap- Trainees Competency- Employment path), this means that hypothesis H1 has been fulfilled, as for the relationship between the VTCs Service Quality Gap and Trainees Competency, the results showed that it's a statistically significant relationship at a significant level ( $P < 0.05$ ), and this relationship has a strong effect and has a negative nature, as indicated by the value of Standard  $\beta$ , this means that hypothesis H2 has been fulfilled, while the relationship between the Employment and Trainees Competency, the results showed that it's a statistically significant relationship at a significant level ( $P < 0.05$ ), and this relationship has a strong effect and has a positive nature, thus, hypothesis H3 was fulfilled.

**Table 9**

*Path Coefficient Analysis*

HYP	Path	$\beta$ values	STDEV	T-Value	P-Value	Result
H1	VTC_Service Quality (gap)-> Employment	-0.117	0.041	2.861	0.004	Supported
H2	VTC_Service Quality(gap) -> Trainees _Competency Trainees	-0.419	0.037	11.433	0.000	Supported
H3	_Competency -> Employment	0.529	0.045	11.865	0.000	Supported

**3.3.5.8 Mediation Analysis**

The mediator can be defined as a variable that explains why there is a relationship between the independent variable and the dependent variable, as the mediator variable mediates between them so that if a change occurs in the independent variable, a change will occur in the mediator variable, which in turn will reflect this change on the dependent variable, and that the relationship of meditation is represented as in Figure (C.1) in Appendix (C) between the IV and the mediator by P1 and between the mediator and the DV by P2, and the assumed direct relationship between the IV and DV is called p3, and the indirect effect between the DV and the IV through the mediator is represented by P1.P2, while for the total effect (indirect effect) represented by P1.P2.P3 (J. Hair et al., 2023).

Figure (C.2) in Appendix (C) shows the mechanism of analyzing the mediation relationship according to Hair et al., (2023) when going through the analysis steps, as shown in Table 10 when examining P1.P2, which passes through the mediator referred to in Table 10 as the Indirect Effect, it appears to be significant, and when examine the relationship P3, the researcher find that it is also significant, and this means that the mediation relationship is partial mediation (Hair et al., 2023), and when examining the sign of all relationships as positive, (they are in the same direction) or not, The results of the model analysis of this study show that they are not positive, therefore, the mediation relationship in the study model according to J. Hair et al., (2023) is a competitive (partial mediation) relationship.

Preacher & Hayes, (2008) consider that the mediator can be analyzed by two steps, the first is Bootstrap total effect (indirect effect) and the second is bootstrapped confidence intervals.

#### **Bootstrap Total Effect (Indirect Effect)**

The relationship between the independent variable and the dependent variable must be significant, and to be significant, the P-value must be less than 0.05.

The mediation relationship between the service quality variable and the employment which passes through the trainees competency was examined through the Smart-PLS 4 program, where Table 10 show that the results of the Total effect (IV and DV via Mediator), Indirect total effects and specific indirect effects are significant relationships because the P-value < 0.05, therefore the first condition is fulfilled according to (Preacher & Hayes, 2008), So, the Indirect Effect represented by the relationship between the VTCs Service Quality Gap and Employment was achieved, which has significant effect (P-value = 0.004, T-value = 2.861  $\beta$  = -0.117), and that explained by hypothesis H1, and the Indirect Effects (Total effects) in the relationship between VTCs Service Quality Gap and Employment through Trainees Competency achieved, and its significant (P-value = 0.000, T-value = 7.892  $\beta$  = -0.222), so the hypothesis H4 is fulfilled, and these values indicate the importance of the existence of the mediation relationship, which has a greater impact than the direct relationship H1, also, the relationship between VTC Service Quality Gap and Trainees Competency has a significant effect (P-value = 0.000, T-value = 11.433,  $\beta$  = -0.419, and indicates the

fulfillment of the hypothesis H2, and relationship between Trainees Competency and Employment has a significant effect (P-value = 0.000, T-value = 11.865,  $\beta = 0.529$ , and indicates the fulfillment of the hypothesis H3.

**Table 10**

*Mediation Analysis*

HYP	Path	Path	$\beta$ values	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values	Result
<b>Indirect Effects (IV and DV via Mediator)</b>							
H1	VTCs Service Quality Gap -> Employment	P3	-0.117	0.041	2.861	0.004	Significant
<b>Indirect Effects (Total effects)</b>							
H2	VTCs Service Quality Gap -> Trainees Competency	P1	-0.419	0.037	11.433	0.000	Significant
H3	Trainees Competency - > Employment	P2	0.529	0.045	11.865	0.000	Significant
<b>Specific indirect effects</b>							
H4	VTCs Service Quality Gap -> Trainees Competency - > Employment		-0.222	0.028	7.892	0.000	Significant

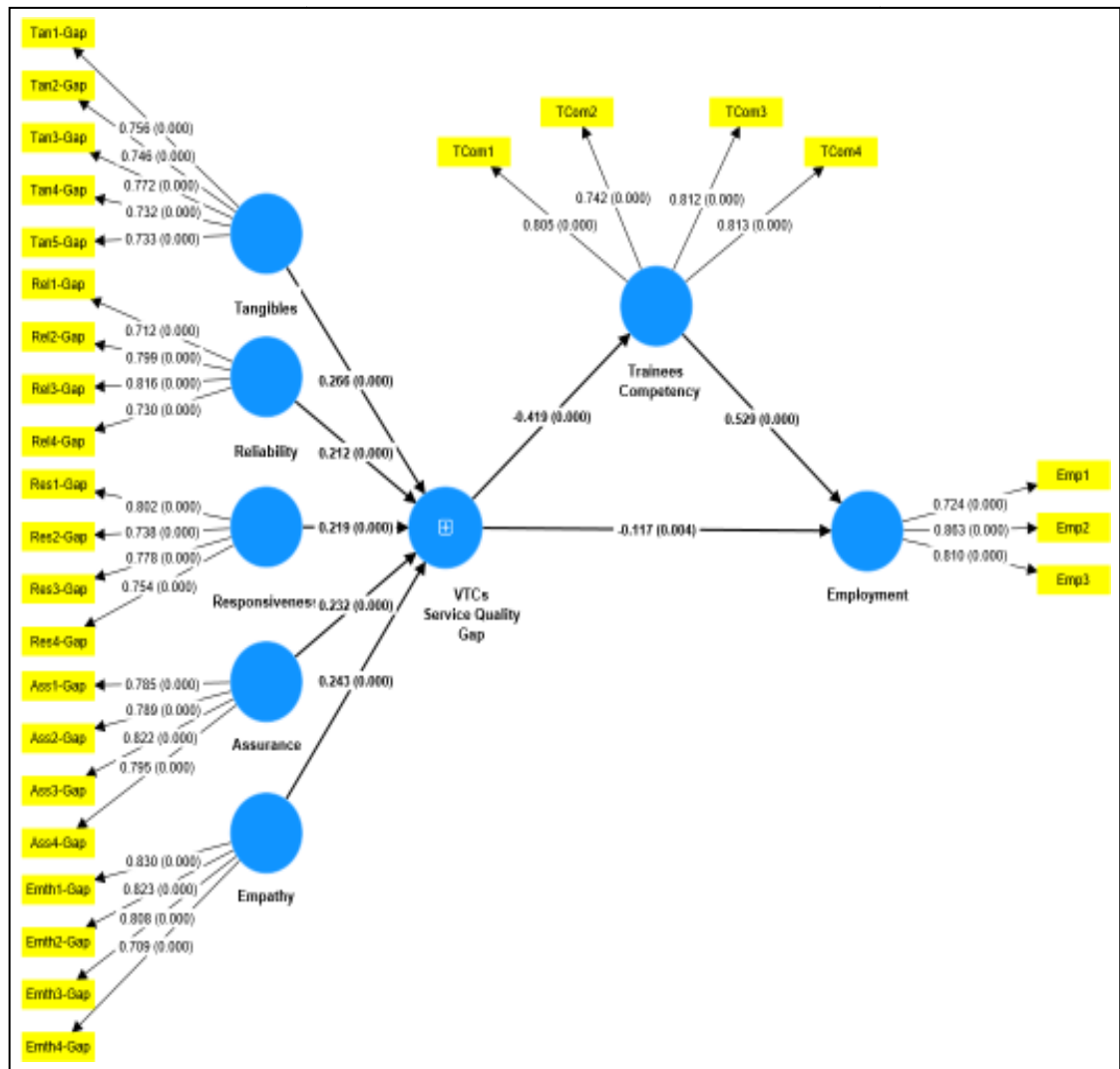
**Bootstrapped confidence intervals**

The second step in mediator analysis is the calculation of bootstrapped confidence intervals, OS there would be a mediator if the Lower Limit (LL) and the Upper Limit (UL) do not intersect with a value zero (Zero does not fall between them), and If the zero is between them, it means that there is no mediator in the relationship (Preacher & Hayes, 2008).

As Table (D.12) in Appendix (D) shows, when examining the confidence interval for each of the path a and the path b, the researcher was found that the period between (LL) and (UL) the zero does not fall between them. Therefore, the second condition is also met, which means that the mediator is important and that it has effect and partial effect on the relationship.

**Figure 10**

*Bootstrapping Procedures*



## **Chapter Four**

### **Discussion, Conclusion and Recommendations**

#### **4.1 Chapter Overview**

This chapter presents the conclusions obtained from the study of assessing the quality of services provided by vocational training centers and their relationship to employment and competency from the trainees' point of view, this chapter includes several sections, where it begins with a discussion of results and hypotheses, and then moves to discuss a theoretical implications and a practical implications, after that moves to the conclusions section, which gives a summary of the results obtained, recommendations will be displayed in the Recommendations section, and the obstacles that the researcher faced during conducting this study in the research limitation section, and finally discussing the future importance of this research and what are the future expectations in this field in the future research directions section.

#### **4.2 Discussion of Results**

This study was conducted for the purpose of assessing the quality of services provided by vocational training centers in the West Bank and its impact on employment through the competence of trainees as mediators, due to the great importance the vocational training sector represents in the current period and to permanently link it to the problem of unemployment and consider it one of the main solutions to it. The vocational service affiliated to the Ministry of Labor offers its main services, which are qualifying, training and developing the skills of the trainees who belong to it, and developing their competencies in an attempt to connect them to the labor market.

In this study, we have dealt with measuring the gap between what the trainees perceived and what they actually found for the services of vocational training centers, using the SERVQUAL Model, which represents the dimensions of service quality in (tangibility, responsiveness, reliability, assurance, empathy), where these dimensions were represented in a questionnaire distributed to the trainees those present in the various vocational training centers, in addition to expressions that measure the extent to which competency and employment are affected by the quality of the service provided, and demographic information was also obtained that proved to be of importance, an evaluation of the study model was also carried out by examining the validity and

reliability of cross loading and other measures and tests that proved the validity and reliability of the study model, and ended with testing the hypotheses.

The questionnaire was relied upon as the main tool for data collection, as 633 questionnaires were distributed to the trainees, who represented 1116 trainees. 554 questionnaires were answered, 82.65%, which is an excellent percentage that shows the extent of the study community's cooperation. As a result of the demographic factor analysis, the rate of response and interest of female trainees was higher in this study, as the response rate of female students was 59%, which is higher than that of males, although the number of males is slightly higher than the number of females in the sample community, but the demand of female students for vocational training centers increases annually (Helal, 2020), especially since the demand for female specializations such as cosmetology is considered the highest, and the majority of centers offer this specialization, as the percentage of cosmetology students was 27.4% of the sample, and it is the highest specialty in response among other specializations. As for age, more than 72.7% of the study population were (16-20) of young people, which is the target group that the Ministry of Labor seeks to introduce them to the professional path and the labor market quickly, and they constitute the highest level of unemployment at a rate of 42% from other groups (MOL, 2021), and this indicates that these centers are moving in the right direction As planned by the Ministry of Labor.

In addition, the study sample showed that the percentage of certificate holders and learners is the highest with a rate of 64.8% for those holding secondary school and above, which also indicates that society pays attention to the importance of vocational training and returns to it even after skipping general education and after obtaining university degrees and higher degrees, this contributes significantly to the quality of the inputs of the trainees who are affiliated with the vocational training centers and increases their employment opportunities, which was reflected in the sample's responses by expecting them to get jobs after completing the training, and this corresponds to what was indicated by Zimmermann et al., (2013) and Korpi et al., (2003) in their study that vocational training, when combined with general education, increases the chances of young people getting jobs.

With regard to the quality of services, and based on the SERVQUAL Model, the gap was measured between students' expectations and what they perceived of the services

provided by the 10 vocational training centers distributed throughout the West Bank, where all the results were higher than the break-even point, which is zero.

The analysis showed that the results of Tangibility were the best among the dimensions in terms of the level of service quality provided, as the quality of tangible services was equal to and more than the trainees' expectations, as the gap was negative (-0.24) and the response rate to questions was 77.40% , where 37.44% of them the services were equal to what they expected, and 39.96% of them the services were higher than what they expected, and this reflects the trainees' satisfaction with this dimension, this indicates that the facilities, devices, and curricula of the centers were of high quality from the point of view of the trainees, as the Tangibility dimension and what it represents of equipment and facilities is considered the most important among the SERVQUAL dimensions in the vocational training system ((Bo & Gottfridsson, 2021; Mulder et al., 2007; Munishi, 2016). Therefore, it is necessary to maintain the continuity of developing and improving all services related to the tangibility dimension, and not to neglect the trainees who evaluated this dimension as below expectations, which is equivalent to 22.60% because vocational training is mainly based on exercises and practical applications to ensure that the trainees receive the skills and training that achieve their goals. From the orientation to receive this service, which requires continuous development of facilities, equipment, devices and other tangible services to keep the trainees up to date with the labor market.

The results also showed a positive assessment of the services provided by the vocational training centers in terms of the assurance dimension, and the gap was negative (-0.23) with a percentage of 81.36%, of which 45.31% were services equal to what they expected, and 36.06% were services higher than what they expected, and this reflects the trainees' confidence and sense of security And satisfaction in their dealings with service providers in vocational training centers, where the results of the study show that this has been achieved, but a comprehensive and unified quality system has not been found for all components of vocational training until now (ETF, 2014; ETF, 2020), in addition to the need not to neglect the evaluation of the trainees who evaluated this dimension that it was below expectations and was Their percentage rate is 18.64%.

As for the Responsiveness dimension, its results were also positive in terms of the quality of services represented by this dimension within the SERVQUAL Model, where

the results were also their assessment of the quality of services from this aspect, that it is equal to and more than what they expected before joining the vocational training centers where the gap is negative and equal to (-0.18) for all statement related to this dimension and a percentage of 77.08% of which 39.35% were the services equal to what they expected and 37.73% the services were higher than what they expected and this reflects the satisfaction of the students with the quality of the services related to the speed of providing services and the response in the training process and assisting the trainees and scheduling services, and it is noted that this section needs increased attention and improvement and The necessity of not neglecting the assessment of the trainees who evaluated this dimension as below expectations and their percentage was 22.93% in order to reach a higher level of satisfaction.

This is followed by the Empathy dimension, where it was also found that there were positive results, but less than the previous dimensions, as the results showed that the services provided by vocational training centers are satisfactory, equal to expectations and slightly increased, as the gap was (-0.16), with a percentage of 70.15%, of which 34.01% were services equal to what they expected and 36.15% the services were higher than what they expected. Although the results are positive, the results show that quality must be improved in this aspect, which represents taking care of the personal needs and individual requirements of the trainees. It is also important to focus on reviewing work hours and their suitability with the trainees' times, where this statement showed the presence of a gap among the trainees and had an impact on this result due to the Empathy dimension, in addition to the need not to neglect the assessment of the trainees who evaluated this dimension as below expectations and their rate was 21.35%.

Finally, the Reliability dimension, as the results showed that what students expected of services was almost equal to what they found in vocational training centers and the closest value to the break-even point, with an average response rate of (-0.15) for all questions related to this dimension, with a percentage of 75.68%, of which 38.13% were services equal to what they expected and 37.55% the services were higher than what they expected. This result is positive and shows the students' satisfaction with this dimension, but it was less than the other dimensions. Thus, the search should be started on how to raise the level of quality of services in terms of reliability, given the importance of the dimension, and not neglecting the assessment of the trainees who

evaluated this dimension that it was below expectations and their percentage was 24.32% where some studies consider this dimension to be the second most important dimension for vocational training after the tangibility dimension (Bo & Gottfridsson, 2021).

Therefore, all the results were positive, and this indicates the trainees' satisfaction with the services provided by the vocational training centers according to the SERVQUAL Model tool, with a slight variation between each dimension and the other. However, when deepening the analysis of the results and taking the analysis based on the geographical location of the vocational training centers, it was found that there is a discrepancy in the results for each of the dimensions, the results showed that there are gaps in the quality of services provided by some centers such as Jenin, Beit Jala, Beit Ur, Halhul, Nablus, and Tulkarm centers, on the other hand, there are centers that provide services without any noticeable gaps from the trainees' point of view who affiliated with these centers

This discrepancy shows the existence of a weakness in the management of vocational training centers in finding a department dedicated to quality and the lack of clear standards for quality and their application to all centers, and this is consistent with the reports of donors (ETF, 2020; Helal, 2020).

This study was conducted due to the importance of the vocational training sector, and many of the benefits of this sector were mentioned at the present time, the most important of which was the contribution to reducing unemployment, increasing job opportunities, and supplying the labor market with qualified and skilled professionals. Therefore, hypotheses were developed for this study and linking the dimensions of the quality of services provided by vocational training centers to the employment process through developing the competency of the trainees. The questionnaire included 4 questions related to the competencies of the trainees and 3 questions related to employment.

The results of analyzing the phrases related to the competency of the trainees showed excellent and very positive results, as the average of their response to all the statements related to the competency of the trainees was 4.16, and all the values of the statements were higher than 4. Therefore, it is considered a high value in the A Likert scale of five

points, and this confirms what was assumed about the contribution of quality services. In the process of developing the competencies of the trainees, it is also consistent with the trainees' satisfaction with the quality of services provided by vocational training centers, which also reflects everything mentioned in this study and previous studies about the importance of this sector in developing the competencies of trainees (Mulder et al., 2007; Helal, 2020; ETF, 2014; Banat et al., 2017), this was also proven by the hypothesis's examination, where the effect of the trainees' efficiency appeared as a mediator between the quality of services and employment.

This was also confirmed by the trainees through their answers to employment questions, where their response rate for all the phrases was 4.09, which is also a high value in the A Likert scale of five points, where the hypothesis of this study linking the quality of services provided by vocational training centers, which was satisfactory for the trainees, with employment was confirmed by raising and developing the competencies of the trainees, and the importance of high-quality vocational training in providing job opportunities for the trainees was emphasized, as the trainees' response rate was 4.27 out of 5 with the expectation of obtaining paid jobs after completing the training.

Thus, this confirms the hypothesis of the study and one of the goals and objectives of conducting this study and confirms what has been mentioned in other studies regarding the relationship of vocational training and the quality of services provided to the employment process and solving unemployment problems from the trainees' point of view (Zimmermann et al., 2013; SDC, 2016; Forster et al., 2016; Banat et al., 2017; Hilal & McGrath, 2016; Helal, 2020; El-jafari, 2010; MOL, 2021), it was also confirmed by the study hypotheses examination and confirming the relationship of the impact of the quality of services provided by vocational training centers on employment by developing the trainees' competencies.

#### **4.2.1 Hypothesis Testing Discussion**

Four hypotheses were developed in section (1.2.4), also the conceptual framework shown in (Figure 1), where the results showed that there is a negative relationship between VTCs Service Quality Gap and the probability of employment which has a weak effect if the relationship is direct which is consistent with Results of previous studies (Zimmermann et al., 2013; SDC, 2016; Forster et al., 2016; Banat et al., 2017

;Hilal & McGrath, 2016; Helal, 2020; El-jafari, 2010; MOL, 2021), it was found that the better the quality of services (less gap), the greater the probability of employment in educational institutions, of which vocational training is considered one of them. Thus, hypothesis H1 is proven.

In addition, the results showed that there is a negative relationship between the VTCs Service Quality Gap and the Competency Trainees, and this relationship has a strong and direct effect, as these results agreed with the studies (Onditi & Wechuli, 2017; Mulder et al., 2007; Helal, 2020; ETF, 2014; Banat et al., 2017), which indicates that the higher the quality of the services provided by educational institutions, including vocational and technical education services, and the more they meet the expectations of the seekers of these services, the greater the competency of its trainees and the development of their skills and abilities, as this is also consistent with the study of Pradela, (2015) and Shauchenka & Busłowska, (2010) that it is possible to influence the quality of services on competency by using the gap model, and thus the H2 hypothesis was proven.

It also appeared in the results that there is a positive relationship between Trainees Competency and Employment, which has a strong effect, as it was shown that the competencies and skills of the trainees affiliated with vocational training centers contribute significantly to the process of employing them in paid jobs, and this is also consistent with (Zimmermann et al., 2013 ; SDC, 2016; Forster et al., 2016; Banat et al., 2017; Hilal & McGrath, 2016; Helal, 2020; El-jafari, 2010; MOL, 2021) Therefore, it is necessary to develop competencies and skills and to find a continuous evaluation mechanism The different competencies of the trainees to ensure their access to the labor market and fill the need and shortage, which was also confirmed by (Mulder et al., 2007) and thus the H3 hypothesis was realized.

Finally, the results of this study confirmed that Trainees Competency has a clear effect as a mediator in the relationship, showing the VTCs Service Quality Gap and Employment, which is a relationship with a strong influence, as the study showed that there are no gaps in the dimensions of the quality of services provided by vocational training centers, which affects the increase in the opportunity to employ trainees, by This is consistent with studies (Zimmermann et al., 2013; SDC, 2016; Forster et al., 2016; Banat et al., 2017; Hilal & McGrath, 2016; Hilal, 2020; El-jafari, 2010; MOL,

2021)), which indicates directly and indirectly the importance of Trainees Competency as a mediator between the Service Quality Gap and Employment. Thus, the trainee reaches the required goal for his service provision, by developing his competence at the beginning and reaching the main goal of applying for this service, obtaining job opportunities. It indicates the loyalty of the trainees to these centers due to their satisfaction with the quality of services in these centers, which proves the validity of hypothesis H4.

#### **4.2.2 Theoretical Implications**

This study contributed to an in-depth identification of the quality of services provided by vocational training centers in the West Bank and linking services quality to the development of trainees' competencies and their impact on employment opportunities. This study provided a comprehensive explanation, starting with the importance of the vocational training sector in Palestine and the provided-services, where the SERVQUAL Model was used to assess the quality of these services, which formed an enrichment for studies related to vocational training in Palestine and its services, which are considered scarce, where the relationship between service quality and employment was represented in the presence of a mediator variable, which is the trainees competencies through the hypotheses that were developed, the study has proven that the trainees of vocational training centers develop their various competencies significantly, this constitutes a great addition provided by this study as a precedent in the studies prepared in this field in Palestine, where it has also become possible to rely on it as evidence that the percentage of employees expected to be employed from vocational training centers is considered high and emphasized that vocational training is one of the main solutions to the problem of unemployment in light of the lack of studies that prove this.

#### **4.2.3 Practical Implications**

This study has important practical implications, beginning with decision makers, as it shows the importance of having a permanent assessment of the quality of services through specialists, because of its great effects in the process of identifying strengths and weaknesses, identifying differences and existing problems, and addressing them, such as focusing on specific aspects of the services provided and working on a solution to the problem of discrepancy in the quality of services provided from one vocational

training center to another, moreover, this study had an impact on external donors to the vocational training sector, by showing that the support provided for vocational training is moving in the right direction, and it facilitates the process of focusing support on aspects that contribute to improving service quality and efficiency, increasing employment opportunities and ensuring continuity in providing these services with high quality, This study also showed that the trainees of vocational centers have high-quality competence and skills, which will contribute to enhancing the community's perception of the importance of vocational training and that it is considered a better option compared to traditional education, especially when referring to the results related to employment, as the vast majority of trainees expect that they will get paid jobs immediately after their completion of training, which will increase the percentage of affiliated trainees with this sector and reduce the number of dropouts.

### **4.3 Conclusions**

The conclusions of this study can be summarized as follows:

1. The study demonstrated the possibility of applying the SERVQUAL Model to assess the quality of services provided by vocational training centers of the Ministry of Labor in the West Bank.
2. There is satisfaction among the trainees with the quality of the services provided by the vocational training centers of the Ministry of Labor in the West Bank as a whole, as these services were as expected by the trainees and exceeded what they expected. The highest dimensions were tangibility and assurance, then responsiveness, empathy, and finally reliability.
3. The authorities responsible for vocational training centers must work to improve the quality of services provided by vocational training centers in general to be higher than what the trainees expect by a greater percentage than what is currently available to ensure the continuity of the quality of services and increase confidence in the vocational training system by the trainees. In particular, the reliability dimension, which is of great importance in the vocational training system, which was the least dimension, although its results were positive.
4. The results of this study confirmed the need to apply what was indicated by previous reports and studies regarding the creation of unified standards and a section dedicated to the quality of services provided by vocational training centers. Where

the results showed a great disparity between some centers in terms of the location of providing the provided service.

5. The trainees in the vocational training centers see a significant development in their competencies through the development of their vocational, technical, personal and social capabilities and skills, through receiving high-quality training
6. The majority of trainees believe that they will get paid jobs after completing the vocational training process, which confirms all that has been said about vocational training being one of the basic keys to solving the problem of unemployment in Palestine.
7. The results of the study confirm that vocational training is a solution to the problem of unemployment and that the employment rate for graduates of vocational training centers is high
8. The higher the quality of the services provided in the vocational training centers and the smaller the gap between what the trainees expect and what they perceive of services, the higher the trainees' competency and skills, and this reflects positively on their employment process.
9. Students with academic degrees feel more satisfied with the services than others, and they also expect that they will get jobs more than those without academic degrees.

#### **4.4 Recommendations**

- Improvement measures must be taken on the quality of services to achieve results that are higher than the trainees' satisfaction and to increase the lack of confidence in the community in this sector, especially the elements that greatly affect vocational training, such as devices, equipment, remote facilities, keeping records and data in reliability and other important elements, which contribute to improving services Provided fully and comprehensively.
- Although the overall results of the quality of services provided by the vocational training centers are positive, there are many aspects that need to be improved more than others, as efforts must be focused additionally on the aspects shown by the study, which represent fragile points that affect the satisfaction of the trainees, starting from a distance Reliability is an important aspect of vocational training.
- The vocational training system is in urgent need of a special department for quality and the existence of clear standards and procedures for quality to be circulated to all

centers so that the problem of disparity in services provided from one region to another is solved, in addition to the need to follow up on quality assessment procedures and collect data periodically and continuously so that improvements are made system based on this data.

- The Ministry of Labor should periodically publish statistics and official data on the outputs and the vocational training system in general, given that there are few studies that deal with this subject and some of the statistics mentioned therein are missing, such as the number of graduates and job holders.
- Increasing interest in the trainees, trying to understand what they need and what they expect to get, and clarifying the nature of the services actually provided at the beginning of the trainings.
- The need to educate service providers about the importance of service quality and the most important dimensions and procedures related to upgrading the services they provide.

#### **4.5 Research Limitations**

- Several challenges arose during the preparation of this study, including:
- Difficulty communicating with government agencies to obtain accurate data
- The absence of a department or employees specialized in quality in the Ministry of Labor concerned with the quality of services provided in vocational training centers
- Scarcity of previous studies in the field of vocational training
- The difficulty of distributing the questionnaire to the various governorates of the West Bank in light of the presence of the occupation and the conditions of closures during the period of distributing the questionnaire
- The target group or the study population, as it represents trainees of different ages and academic degrees, which led to the possibility of not taking the questionnaire seriously. Therefore, questionnaires were distributed that exceeded the sample size to reduce the error rate, if any.
- The inability to cover all vocational training specializations due to the presence of some of them in practical training and others who are absent for various reasons.
- The study included vocational training centers of the Ministry of Labor in the West Bank only, and the Gaza Strip was ignored in light of the current political conditions.

#### **4.6 Future Research Directions**

- This study can be used by decision-makers and donors in reports, studies and procedures related to the subject of the study
- Implementation of similar studies on various government institutions in an attempt to evaluate the services provided and improve their quality
- It is possible to customize future studies in a more in-depth manner, to include an analysis of each dimension of service quality
- This study can be considered as a reliable base for conducting other studies that follow this study, such as conducting another study related to graduates of vocational training centers or representing the viewpoint of the labor market.

## **List of Abbreviations**

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<b>Abbreviation</b>	<b>Meaning</b>
Ass	Assurance
Emp	Employment
Emth	Empathy
ETF	European Training Foundation
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
MOL	Ministry Of Labor
NGO	Non-governmental organization
PCM	Palestinian Cabinet of Ministers
Rel	Reliability
Res	Responsiveness
Tan	Tangibles
TCom	Trainees Competency
TVET	Technical and vocational education and training
VTCs	Vocational Training Centers

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## **Appendices**

### **Appendix A**

#### **Questionnaire in English**



**An-Najah National University**

**Faculty of Graduate Studies**

**Engineering Management Program**

#### **Trainee-Perceived Service Quality Assessment in West Bank Vocational Training Centers**

##### **Dear respondent**

This study aims to assess the quality of services provided by the vocational training centers affiliated to the Ministry of Labor from the trainees' point of view enrolled in these centers and to know the level of their satisfaction with these services and the impact of this on the trainees' employment process by increasing their competencies, and then it will be relied upon to provide proposals to increase students' satisfaction with Services provided by vocational training centers.

And since we believe that you are the best source to access the required information, we turn to you and I hope to find cooperation from you, by answering the questions in this questionnaire.

**Thank you**

**Researcher Hamza Salahat**

**Part One: Personal Information**

**Gender:**

Male  Female

**Age:**

16-20  21-30  Older than 31

**Qualification:**

Less than Tawjihi  Passed Tawjihi

Bachelor's degree or diploma (currently studying)

Bachelor's degree, diploma or postgraduate certificates

**Training place:**

Jenin  Salfeet  Yatta

Halhul  Beit Jala  Beit Ur

Tulkarm  Qalqilya

**Specialization to which you are affiliated:**

Sanitary installations and central heating

Interior design and decoratio  Light vehicle mechanic

Buildings Reinforcement and construction of stone and brick

Electrical installations  E-Marketing

Mechatronics of light vehicles  Mobile device maintenance

Aluminum works  Men's haircut

Welding technology and blacksmithing

Graphic design  Tile work

Photography technology and film making

- (     ) Air conditioning and refrigeration    (     ) Carpentry
- (     ) Computer and network maintenance
- (     ) Cosmetology and hairdressing        (     ) Sweets and pastries making
- (     ) Car tinting and painting            (     ) Secretarial and office automation
- (     ) Sofa detailing and upholstery        (     ) Light vehicle electrics
- (     ) Devices and electronic boards Maintenance
- (     ) Blacksmithing and metal forming    (     ) Automotive electro mechanics
- (     ) Smart Homes                            (     ) Others

**Part Two: Service Quality (SERVQUAL MODEL)**

Please indicate the degree of your agreement or disagreement with each of the following statements using the scale shown below, and put the appropriate number in the box in front of each of them:				
<b>Strongly Disagree (1)</b>	<b>Disagree (2)</b>	<b>Neutral (3)</b>	<b>Agree (4)</b>	<b>Strongly Agree (5)</b>
<b>First dimension: Tangibility</b>				
<b>Statement</b>		<b>Expected quality level</b>	<b>Actual quality level</b>	
1. The facilities, halls and workshops are safe, appropriate and comfortable				
2. Trainings are provided based on clear plans and approaches.				
3. The equipment, devices and tools are advanced and meet the trainees' needs.				
4. The training staff at the center helps you meet your different needs.				
5. The training services provided by the center are compatible with the labor market.				
<b>Second dimension: Reliability</b>				
<b>Statement</b>		<b>Expected quality level</b>	<b>Actual quality level</b>	
6. The center adheres to the pre-set training times for training accurately.				
7. When I face any problem, the management and trainers of the center solve it quickly.				
8. When the center promises to do something, it does it on time.				

9. The center maintains the trainees' information and records and can back to them at any time.		
<b>Third dimension: Responsiveness</b>		
<b>Statement</b>	<b>Expected quality level</b>	<b>Actual quality level</b>
10.The center provides its services quickly and commensurate with the training and its requirements.		
11.The center informs the trainees of the date of providing services, and in the event of a change, they are notified directly.		
12.The management and trainers of the center are always ready to receive and assist the trainees		
13.The center staff responds to the trainees' requests immediately.		
<b>Fourth dimension: Assurance</b>		
<b>Statement</b>	<b>Expected quality level</b>	<b>Actual quality level</b>
14.I can trust the quality of the services provided by the center.		
15.I feel safe in my dealings with the center's staff.		
16. The center stuff deal tactfully with the trainees.		
17.The center's staff are qualified and fully knowledgeable to answer the trainees' questions and inquiries.		
<b>Fifth dimension: Empathy</b>		
<b>Statement</b>	<b>Expected quality level</b>	<b>Actual quality level</b>
18.Trainers give attention to each trainee individually.		
19.The staff of the center give me personal attention and meet my needs.		
20.The center meets the needs of each trainee, which makes the center's atmosphere friendly.		
21.Training and work hours in the center are suitable for all trainees.		

### Part three: Trainees Competency

Please indicate the degree of your agreement or disagreement with each of the following statements using the scale shown below, and put the appropriate number in the box in front of each of them:				
<b>Strongly Agree (5)</b>	<b>Agree (4)</b>	<b>Neutral (3)</b>	<b>Disagree (2)</b>	<b>Strongly Disagree (1)</b>
<b>Statement</b>				
	1. My vocational abilities and skills developed after I joined the Vocational Training Center.			
	2. Trainings that simulate real situations at work have been applied, which have contributed to developing my personal, technical and social competencies.			
	3. After joining the Vocational Training Center, I have the ability to carry out work with perfection and high quality			
	4. The competency of the trainees increased after receiving training from highly qualified trainers.			

### Part four: Employment

Please indicate the degree of your agreement or disagreement with each of the following statements using the scale shown below, and put the appropriate number in the box in front of each of them:				
<b>Strongly Disagree (1)</b>	<b>Strongly Disagree (1)</b>	<b>Strongly Disagree (1)</b>	<b>Strongly Disagree (1)</b>	<b>Strongly Disagree (1)</b>
<b>Statement</b>				
	1. The training includes meetings with employers, chambers of commerce and employment officials to help the trainees find a job opportunity			
	2. The training plan includes practical training in the labor market that will help provide a job opportunity.			
	3. I expect, at the end of the training, and after the skills I have acquired, to get a job, or to work alone for a fee			

## Appendix B

### Questionnaire in Arabic



جامعة النجاح الوطنية

كلية الدراسات العليا

برنامج ماجستير الإدارة الهندسية

استبانة حول

تقييم جودة الخدمة المتصورة من قبل المتدرب في مراكز التدريب المهني التابعة لوزارة العمل من وجهة

الأخ الفاضل / الأخت الفاضلة: تحية طيبة وبعد،

تهدف هذه الدراسة الى تقييم جودة الخدمات التي تقدمها مراكز التدريب المهني التابعة لوزارة العمل من وجهة نظر المتدربين الملتحقين في هذه المراكز ومعرفة مستوى رضاهم عن هذه الخدمات ومن ثم سيتم الاعتماد عليها لتقديم المقترحات لزيادة رضى الطلاب عن الخدمات التي تقدمها مراكز التدريب المهني

وحيث نؤمن أنكم خير مصدر للوصول إلى المعلومات المطلوبة، نتوجه إليكم وكي أمل أن أجد التعاون من قبلكم، وذلك من خلال الإجابة على الأسئلة الموجودة في هذه الاستبانة والتي نتعهد لكم بالمحافظة على عدم إظهار هوية المجيب عنها وعدم استخدامها في أي مجال غير مجال البحث العلمي.

ولكم جزيل الشكر والتقدير.

الباحث حمزة صلاحات

الجزء الأول: المعلومات الشخصية

الجنس:

( ) ذكر ( ) انثى

العمر:

( ) من 16 - 20 ( ) من 21 - 30 سنة ( ) أكبر من 31 سنة

المؤهل العلمي:

( ) أقل من ثانوية عامة ( ) ثانوية عامة ناجح

( ) بكالوريوس أو دبلوم (يدرس حالياً) ( ) خريج بكالوريوس أو دبلوم أو شهادات عليا

مكان التدريب:

( ) جنين ( ) سلفيت ( ) يطا

( ) الخليل ( ) حلحول ( ) بيت جالا

( ) نابلس ( ) بيت عور ( ) طولكرم

( ) قلقيلية

التخصص الذي انتسبت إليه:

( ) التمديدات الصحية والتدفئة المركزية ( ) التصميم الداخلي والديكو

( ) ميكانيكي مركبات خفيفة ( ) الطوبار وتسليح المباني وبناء الحجر والطوب

( ) التمديدات الكهربائية ( ) التسويق الالكتروني

- ( ) ميكاترونكس مركبات خفيفة
- ( ) صيانة اجهزه خلوية
- ( ) أعمال الألمنيوم
- ( ) حلاقة الرجالي
- ( ) تكنولوجيا اللحام و أعمال الحدادة
- ( ) التصميم الجرافيكي
- ( ) أعمال البلاط
- ( ) تكنولوجيا التصوير وصناعة الافلام
- ( ) التكييف والتبريد
- ( ) الخياطة وتصميم الازياء
- ( ) أعمال النجارة
- ( ) صيانة الحاسوب والشبكات
- ( ) التجميل وتصفيف الشعر
- ( ) صناعة الحلويات والمعجنات
- ( ) تجليس ودهان السيارات
- ( ) السكرتاريا وأتمتة المكاتب
- ( ) تفصيل وتنجيد الكنب
- ( ) صيانة الثلاجات المنزلية
- ( ) كهربائي مركبات خفيفة
- ( ) صيانة الأجهزة واللوحات الإلكترونية
- ( ) الحدادة وتشكيل المعادن
- ( ) الطاقة الشمسية
- ( ) كهر وميكانيك السيارات
- ( ) البيوت الذكية
- ( ) اخرى:.....

الجزء الثاني: جودة الخدمات SERVQUAL MODEL

يرجى تحديد درجة موافقتك أو عدم موافقتك على كل عبارة من العبارات التالية باستخدام المقياس المبين أدناه، ووضع الرقم المناسب في المربع أمام كل منها:				
غير موافق بشدة (1)	غير موافق (2)	محايد (3)	موافق (4)	موافق بشدة (5)
<b>البعد الأول: الملموسية Tangibility</b>				
مستوى الجودة المتوقع		مستوى الجودة الفعلي		
<b>العبارة</b>				
1. المرافق والقاعات والمشاعل آمنة و مناسبة و مريحة				
2. تُقدم التدريبات اعتماداً على خطط ومناهج واضحة.				
3. المعدات والأجهزة والأدوات متطورة وتلبي احتياجات الطلبة				
4. الكادر التدريبي في المركز يساعدك في تلبية احتياجاتك المختلفة.				
5. تتلاءم الخدمات التدريبية التي يقدمها المركز مع واقع سوق العمل.				
<b>البعد الثاني: الموثوقية Reliability</b>				
مستوى الجودة المتوقع		مستوى الجودة الفعلي		
<b>العبارة</b>				
6. يلتزم المركز بأوقات التدريب المحددة مسبقاً للتدريب بشكل دقيق.				
7. عندما أواجه أي مشكلة، فإن إدارة و مدربي المركز يقومون بحلها بسرعة.				
8. عندما يعد المركز بتنفيذ شيء فإنه يقوم بذلك في الوقت المحدد.				
9. يحتفظ المركز بمعلومات وسجلات المتدربين ويمكن الرجوع إليها في أي وقت.				
<b>البعد الثالث: الاستجابة Responsiveness</b>				
مستوى الجودة المتوقع		مستوى الجودة الفعلي		
<b>العبارة</b>				
10. يقدم المركز خدماته بشكل سريع وتناسب مع التدريبات ومتطلباتها				

		11. يقوم المركز بإعلام المتدربين عن موعد تقديم الخدمات لهم وفي حال وجود تغيير يتم إبلاغهم بشكل مباشر.
		12. إدارة ومدربي المركز على استعداد دائم لاستقبال المتدربين ومساعدتهم
		13. يستجيب موظفو المركز لطلبات المتدربين على الفور.
<b>البعد الرابع: الثقة/الامان Assurance</b>		
مستوى الجودة الفعلي	مستوى الجودة المتوقع	العبرة
		14. يمكنني الوثوق بجودة الخدمات التي يقدمها المركز.
		15. أشعر بالأمان في معاملاتي مع موظفي المركز.
		16. موظفو المركز يتعاملون بشكل لبق مع المتدربين.
		17. موظفو المركز مؤهلين ويملكون المعرفة التامة للإجابة على أسئلة واستفسارات المتدربين.
<b>البعد الخامس: التعاطف Empathy</b>		
مستوى الجودة الفعلي	مستوى الجودة المتوقع	العبرة
		18. يعطي المدرب الاهتمام لكل متدرب على حدة.
		19. يمنحني موظفو المركز الاهتمام الشخصي وتلبية ما أحتاجه من خدمات.
		20. يلبي المركز احتياجات كل متدرب مما يجعل أجواء المركز ودية.
		21. ساعات التدريب والعمل في المركز تناسب جميع المتدربين.

### القسم الثالث: كفاءة المتدربين Trainees Competency

يرجى تحديد درجة موافقتك أو عدم موافقتك على كل عبارة من العبارات التالية باستخدام المقياس المبين أدناه، ووضع الرقم المناسب في المربع أمام كل منها:				
غير موافق بشدة (1)	غير موافق (2)	محايد (3)	موافق (4)	موافق بشدة (5)
<b>العبرة</b>				
1. تطورت قدراتي ومهاراتي المهنية بعدما التحقت في مركز التدريب المهني.				
2. تم تطبيق تدريبات تحاكي مواقف حقيقية في العمل ساهمت في تطوير كفاياتي الشخصية والفنية والاجتماعية.				

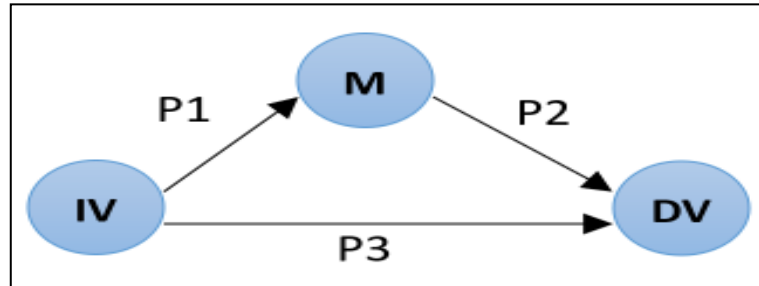


## Appendix C

### Figures

**Figure C.1**

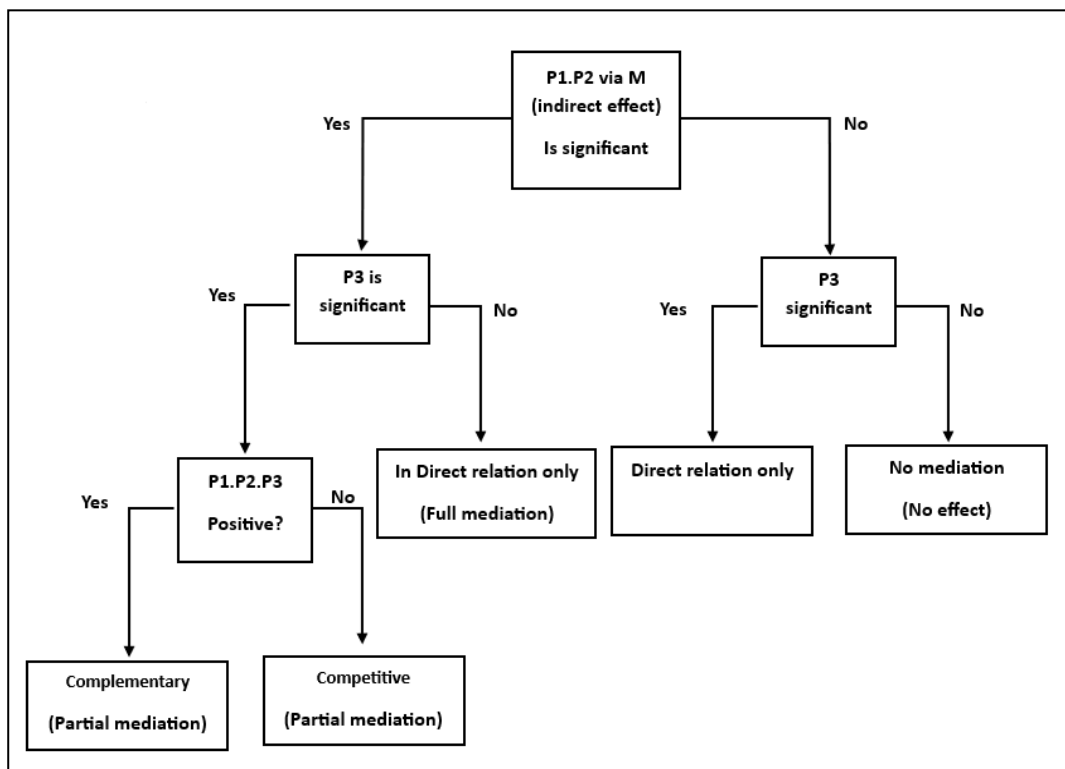
*Mediation Model*



Source: (J. Hair et al., 2023) p.140

**Figure C.2**

*Mediation Analysis Steps*



## Appendix D

### Tables

**Table D.1**

*Operationalization Of Model Constructs*

Constructs	Construct items	Adopted from
Tangibles	Safe and appropriate facilities, workshops and halls in the VTCs.	(Prakash, 2016) (Munishi, 2016)
	Clear plans and curricula for the training	(Banat et al., 2017)
	Equipment and tools	(Kusumaningrum, 2016)
	Training staff	(Rastogi, 2017)
	The suitability of services to the labor market	(Azeem et al., 2018) (Rinanto et al., 2019)
Reliability	Commitment to training times	(Munishi, 2016)
	Quick problem solving	(Zimmermann et al., 2013)
	Commitment to promises	(Mulder et al., 2007) (Kusumaningrum, 2016)
	Information and records preservation	(Rastogi, 2017) (Azeem et al., 2018) (Rinanto et al., 2019)
Responsive ness	Quick and appropriate services	(Mulder et al., 2007)
	Clear schedules and direct communication	(Kusumaningrum, 2016)
	Providing immediate assistance	(Rastogi, 2017)
	An immediate and effective response to requests	(Azeem et al., 2018) (Rinanto et al., 2019)
Assurance	Trainees' confidence in the quality of service provided by the VTCs	(Kusumaningrum, 2016)
	Trainees' feeling of safety in their dealings with the employees of the VTCs	(Rastogi, 2017)
	VTCs staff tactfully dealing	(Azeem et al., 2018)
	VTCs staff are qualified and knowledgeable	(Rinanto et al., 2019)
Empathy	Trainers giving attention to each trainee individually	(Kusumaningrum, 2016)
	VTCs staff give personal attention and meet the trainees needs	(Rastogi, 2017)
	The atmosphere of training in VTCs is friendly	(Azeem et al., 2018)
	The appropriateness of training hours and practical exercises with the trainees' time.	(Rinanto et al., 2019)
Trainees Competency	The development of vocational abilities and skills of trainees after joining the VTCs	(Zimmermann et al., 2013) (Mulder et al., 2007)
	The Trainings simulate real work situations that developed the personal,	(Banat et al., 2017) (Kusumaningrum, 2016) (Rastogi, 2017)

<b>Constructs</b>	<b>Construct items</b>	<b>Adopted from</b>
	<p>technical and social competencies of the trainees</p> <p>The trainees have the ability to carry out work with perfection and high quality</p> <p>The efficiency of the trainees increased after receiving training from highly qualified trainers.</p>	(Mulder et al., 2007)
Employment	<p>The training includes meetings with employers, and commerce and employment officials to help the trainees find a job opportunity</p> <p>The training plan includes practical training in the labor market that will help in finding a job opportunity.</p> <p>At the end of the training, the trainee is expected to get a job in the labor market, or work independently in the profession that he joined in the VTCs for a fee.</p>	<p>(SDC, 2016)</p> <p>(Banat et al., 2017)</p> <p>(Hanushek et al., 2011)</p> <p>(Hilal &amp; McGrath, 2016)</p> <p>(Arman et al., 2022)</p>

**Table D.2**

*Harman's single-factor test*

<b>Total Variance Explained</b>						
<b>Factor</b>	<b>Initial Eigenvalues</b>			<b>Extraction Sums of Squared Loadings</b>		
	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>
1	10.040	35.856	35.856	9.415	33.625	33.625

**Table D.3***SPSS Output Respondents profile summary*

No.	items	Option	Frequency	Percentage
1.	Gender	Male	227	41%
		Female	327	59%
		<b>Total</b>	<b>554</b>	<b>100.0%</b>
2.	Age	16-20	403	72.74%
		21-30	116	20.94%
		Older than 31	35	6.32%
		<b>Total</b>	<b>554</b>	<b>100.0%</b>
3.	Educational level	Less than tawjihi	195	35.2%
		Tawjihi	276	49.82%
		Still studying (Bachelor Diploma)	40	7.22%
		Bachelor's degree, diploma, postgraduate studies	43	7.76%
		<b>Total</b>	<b>554</b>	<b>100.0%</b>
4.	Location	Jenin	74	13.36%
		Salfeet	62	11.19%
		Yatta	62	11.19%
		Hebron	95	17.15%
		Halhul	46	8.3%
		Beit-Jala	29	5.23%
		Beit-Ur	19	3.43%
		Tulkarm	38	6.86%
		Qalqilya	58	10.47%
		Nablus	71	12.82%
	<b>Total</b>	<b>554</b>	<b>100.0%</b>	
6.	Specialization	Sanitary-installations- central-heating	1	0.18%
		Interior-design&decoration	1	3.07%
		Light-vehicle-mechanic	17	1.81%
		Electrical-installations	10	5.05%
		E-Marketing	28	2.17%
		Aluminum-works	12	6.14%
		Welding-technology-and-blacksmithing	34	0.54%
		Graphic-design	3	5.96%
		Tile-works	33	2.71%
		Imaging-technology-and-film-making	15	1.44%
		Air-conditioning-and-refrigeration	8	8.48%
		Tailoring-and-fashion-design	47	9.57%
		Carpentry	53	2.89%
		Computer-and-network-maintenance	16	1.81%
		Cosmetology and hairdressing	10	27.44%
		Manufacturing-sweets-and-pastries	152	2.89%
		Car-veneering-and-painting	16	2.89%
		Secretarial-and-office-automation	16	6.32%
		Electrician-of-light-vehicles	35	1.62%
		Electrical-and-auto-mechanics	9	3.61%
Photography	20	1.26%		
Painting-and-decoration	7	1.08%		
Electrical-extensions-and-solar-energy	6	0.18%		
	<b>Total</b>	<b>554</b>	<b>100.0%</b>	

**Table D.4***Measurement Model Assessment- Convergent Validity*

<b>Constructs</b>	<b>Items</b>	<b>Loading</b>	<b>AVE</b>	<b>CR</b>
Tangibles	Tan1-Gap	0.756	0.559	0.864
	Tan2-Gap	0.746		
	Tan3-Gap	0.772		
	Tan4-Gap	0.731		
	Tan5-Gap	0.733		
Reliability	Rel1-Gap	0.712	0.586	0.850
	Rel2-Gap	0.799		
	Rel3-Gap	0.816		
	Rel4-Gap	0.730		
Responsiveness	Res1-Gap	0.802	0.590	0.852
	Res2-Gap	0.738		
	Res3-Gap	0.779		
	Res4-Gap	0.753		
Assurance	Ass1-Gap	0.784	0.636	0.875
	Ass2-Gap	0.789		
	Ass3-Gap	0.822		
	Ass4-Gap	0.795		
Empathy	Emth1-Gap	0.830	0.630	0.872
	Emth2-Gap	0.823		
	Emth3-Gap	0.808		
	Emth4-Gap	0.709		
Trainees Competency	TCom1	0.805	0.630	0.872
	TCom2	0.742		
	TCom3	0.812		
	TCom4	0.813		
Employment	Emp1	0.724	0.642	0.842
	Emp2	0.863		
	Emp3	0.810		

**Table D.5***Measurement Model Assessment Discriminant Validity- Cross Loading*

	<b>Tangibles</b>	<b>Reliability</b>	<b>Responsiveness</b>	<b>Assurance</b>	<b>Empathy</b>	<b>Trainees Competency</b>	<b>Employment</b>
Tan1-Gap	<b>0.756</b>	0.523	0.501	0.480	0.483	-0.340	-0.257
Tan2-Gap	<b>0.746</b>	0.511	0.503	0.429	0.468	-0.321	-0.234
Tan3-Gap	<b>0.772</b>	0.500	0.481	0.433	0.485	-0.264	-0.191
Tan4-Gap	<b>0.732</b>	0.475	0.492	0.427	0.478	-0.248	-0.165
Tan5-Gap	<b>0.733</b>	0.507	0.541	0.497	0.473	-0.342	-0.247
Rel1-Gap	0.481	<b>0.712</b>	0.466	0.421	0.402	-0.262	-0.204
Rel2-Gap	0.546	<b>0.799</b>	0.578	0.574	0.542	-0.238	-0.217
Rel3-Gap	0.578	<b>0.816</b>	0.610	0.496	0.504	-0.299	-0.239
Rel4-Gap	0.446	<b>0.730</b>	0.442	0.415	0.442	-0.208	-0.187
Res1-Gap	0.580	0.576	<b>0.802</b>	0.526	0.538	-0.245	-0.188
Res2-Gap	0.492	0.503	<b>0.738</b>	0.512	0.500	-0.238	-0.199
Res3-Gap	0.498	0.529	<b>0.778</b>	0.551	0.500	-0.293	-0.181
Res4-Gap	0.498	0.512	<b>0.754</b>	0.531	0.558	-0.205	-0.220
Ass1-Gap	0.545	0.525	0.585	<b>0.785</b>	0.529	-0.261	-0.225
Ass2-Gap	0.486	0.486	0.527	<b>0.789</b>	0.473	-0.239	-0.184
Ass3-Gap	0.465	0.485	0.539	<b>0.822</b>	0.490	-0.235	-0.194
Ass4-Gap	0.437	0.504	0.546	<b>0.795</b>	0.554	-0.270	-0.258
Emth1-Gap	0.537	0.509	0.538	0.590	<b>0.830</b>	-0.345	-0.299
Emth2-Gap	0.514	0.494	0.574	0.590	<b>0.823</b>	-0.337	-0.337
Emth3-Gap	0.521	0.523	0.548	0.587	<b>0.808</b>	-0.294	-0.221
Emth4-Gap	0.452	0.443	0.448	0.492	<b>0.709</b>	-0.278	-0.211
TCom1	-0.317	-0.227	-0.251	-0.242	-0.276	<b>0.805</b>	0.459
TCom2	-0.278	-0.212	-0.197	-0.228	-0.272	<b>0.742</b>	0.432
TCom3	-0.324	-0.265	-0.246	-0.239	-0.306	<b>0.812</b>	0.462
TCom4	-0.368	-0.308	-0.334	-0.293	-0.392	<b>0.813</b>	0.480
Emp1	-0.213	-0.157	-0.194	-0.208	-0.207	0.358	<b>0.724</b>
Emp2	-0.249	-0.255	-0.202	-0.210	-0.285	0.495	<b>0.863</b>
Emp3	-0.242	-0.241	-0.220	-0.233	-0.308	0.515	<b>0.810</b>

**Table D.6***Measurement Model Assessment Discriminant Validity- Fornell & larker criterion*

	<b>Tangibles</b>	<b>Reliability</b>	<b>Responsiveness</b>	<b>Assurance</b>	<b>Empathy</b>	<b>Trainees Competency</b>	<b>Employment</b>
Tangibles	<b>0.748</b>						
Reliability	0.673	<b>0.766</b>					
Responsiveness	0.674	0.691	<b>0.768</b>				
Assurance	0.607	0.627	0.690	<b>0.798</b>			
Empathy	0.639	0.621	0.666	0.713	<b>0.794</b>		
Trainees Competency	-0.408	-0.328	-0.340	-0.327	-0.396	<b>0.794</b>	
Employment	-0.294	-0.277	-0.256	-0.271	-0.338	0.578	<b>0.801</b>

**Table D.7***Measurement Model Assessment Discriminant Validity- HTMT*

	<b>Assurance</b>	<b>Empathy</b>	<b>Employment</b>	<b>Reliability</b>	<b>Responsiveness</b>	<b>Tangibles</b>	<b>Trainees Competency</b>
Assurance							
Empathy	0.883						
Employment	0.353	0.434					
Reliability	0.791	0.788	0.364				
Responsiveness	0.874	0.846	0.344	0.893			
Tangibles	0.751	0.795	0.383	0.855	0.856		
Trainees Competency	0.390	0.488	0.746	0.405	0.412	0.504	

**Table D.8***Coefficient determination -R square*

	<b>R-square</b>	<b>R-square adjusted</b>
Employment	0.346	0.343
Trainees Competency	0.176	0.174

**Table D.9***Effect size – F square*

	<b>Employment</b>	<b>Trainees Competency</b>
Trainees Competency	0.353	
VTCs Service Quality Gap		0.213

**Table D.10***Productive Relevance Q2*

	<b>Q<sup>2</sup> (=1-SSE/SSO)</b>
Employment	0.110
VTCs Service Quality Gap	0.170

**Table D.11***Test for Multicollinearity- Variance Inflation Factor VIF*

<b>Second-order construct</b>	<b>First-order construct</b>	<b>VIF</b>
VTCs_Service Quality_Gap	Assurance	2.54
	Empathy	2.51
	Reliability	2.39
	Responsiveness	2.71
	Tangibles	2.33

**Table D.12***Confidence Interval test*

	<b>Path 1</b>	<b>Path 2</b>	<b>Indirect Effect</b>	<b>STDEV</b>	<b>T-value</b>	<b>Bootstrapped Confidence Interval</b>	
						<b>95% LL</b>	<b>95% UL</b>
M1	-0.4190	0.5291	-0.117	0.0278	2.861	-0.172	-0.063



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قدمت هذه الرسالة استكمالاً لمتطلبات الحصول على درجة الماجستير في الإدارة الهندسية،  
من كلية الدراسات العليا، في جامعة النجاح الوطنية، نابلس-فلسطين.

2023

## تقييم جودة الخدمة المتصورة من قبل المتدرب في مراكز التدريب المهني في الضفة الغربية

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### الملخص

هدفت هذه الدراسة إلى تقييم واقع جودة الخدمات التي تقدمها مراكز التدريب المهني في الضفة الغربية من وجهة نظر المتدربين وعلاقتها بحصول المتدربين على وظائف من خلال تطوير كفاءاتهم، ونظراً لأن جودة الخدمة تعتبر عنصراً رئيسياً لتطوير وتحسين أداء المؤسسات والشركات سواءً حكومية أو خاصة، وكما استهدفت هذه الدراسة الخدمات التي تقدمها مراكز التدريب المهني نظراً للأهمية الكبيرة التي توليها الحكومة والمجتمع لقطاع التدريب المهني باعتباره حالياً أحد الحلول الرئيسية والسريعة لمشكلة البطالة المستفحلة في فلسطين ونقص الأيدي العاملة المهنية الماهرة في السوق المحلي الفلسطيني، وقد تم تقييم جودة الخدمات من خلال استخدام نموذج جودة الخدمة (SERVQUAL Model)، وذلك من خلال تصميم استبانة تضم عدداً من العبارات عن كل بعد من أبعاد النموذج بالإضافة إلى عبارات تقياس أثر وأهمية جودة الخدمات من حيث رفع وتطوير كفاءة المتدربين ووصولهم إلى الغاية الرئيسية من الإقبال على مراكز التدريب المهني وهي التوظيف، كما احتوت الاستبانة على البيانات الديموغرافية ذات الأهمية وربطها في الهدف الرئيسي لهذه الدراسة ودراسات أخرى. تمثل مجتمع الدراسة بالمتدربين المنتسبين لهذه المراكز الذين أمضوا أكثر من 4 أشهر في التدريب في مختلف التخصصات التي كانت متوفرة في وقت توزيع الاستبانة، وتم توزيع الاستبانة ورقياً ووجاهياً على المتدربين، حيث شارك في تعبئة الاستبانة 584 من المتدربين، ومن ثم تم إدخال معلومات الاستبانة إلى الحاسوب و تحليل البيانات باستخدام البرامج SPSS, Excel Smart-PLS.

أظهرت نتائج الدراسة أن مستوى جودة الخدمات التي تقدمها مراكز التدريب المهني كان مرضياً للمتدربين، حيث كان مستوى الخدمات المقدمة بشكل فعلي تساوي وتزيد عن ما كان يتوقعه المتدربون بدءاً من بعد الملموسية (Tangibility) بنسبة 76% من المتدربين، ثم بعد الأمان (assurance) بنسبة 80.1%، والاستجابة (Responsiveness) كان بنسبة 67.9%، وبعد التعاطف (Empathy) بنسبة 77.27%، وأخيراً كان بعد المصداقية (Reliability) بنسبة 74.06%.

ومن خلال هذه النتائج نرى أن تقييم جودة الخدمة في مراكز التدريب المهني كان إيجابياً من وجهة نظر المتدربين وهو ما انعكس أيضاً على تقييمهم لتطوير كفاياتهم من خلال هذه الخدمات، حيث أجاب المتدربون بمعدل 4.14 من 5 على عبارات قياس مدى تطور كفاياتهم، وهي قيمة مرتفعة على مقياس Likert scale of five points، وتظهر أن الخدمات المقدمة ذات جودة و ساهمت بشكل كبير في تطوير كفايات المتدربين المختلفة، وهو ما يفسر دور تطور كفايات المتدربين كوسيط بين جودة الخدمات المقدمة وبين عملية توظيف المتدربين، وكذلك كانت النتائج إيجابية من حيث توقع المتدربين على حصولهم على عمل بعد انهاءهم التدريب حيث كان معدل توقعهم لذلك على مقياس Likert 4.25، وهو ما يشير إلى ما أكدت عليه هذه الدراسة من أهمية التدريب المهني وأنه يعتبر حلاً لمشكلة البطالة ويساهم في سد حاجة السوق الفلسطيني من المهنيين.

كما قدمت هذه الدراسة معلومات ذات أهمية من خلال البيانات الديموغرافية التي تم جمعها حيث تبين وجود تباين كبير في جودة الخدمات المقدمة بين فروع مراكز التدريب المهني المختلفة حسب الموقع الجغرافي، بالإضافة إلى البيانات المتعلقة بالنوع الاجتماعي و نسبة المتعلمين وحاملين الشهادات العلمية من المتدربين وقورنت بدراسات أخرى.

ساهمت الدراسة بنقل صورة عن واقع الخدمات التي تقدمها مراكز التدريب المهني ومعرفة مدى تحقيق هذه المراكز للأهداف التي أنشئت من أجلها من حيث تطوير كفاءات منتسبيها وإيصالهم إلى سوق العمل،

كما ساهمت في إظهار نقاط القوة والضعف لهذا القطاع والتي يمكن الاعتماد عليها من قبل متخذي القرارات والجهات الداعمة والمانحة، وكما أوصت الدراسة بعديد من الخطوات والإجراءات التي يمكن ان تشكل إضافة نوعية لقطاع التدريب المهني والخدمات التي يقدمها وفتحت المجال لإجراء دراسات أخرى تستفيد من نتائج هذه الدراسة، وزيادة الدراسات وبالتالي مصادر المعلومات التي تعتبر شحيحة في هذا المجال .

**الكلمات المفتاحية:** نموذج جودة الخدمة، التدريب المهني، التوظيف، الكفاءة.