

## **Applying SERVQUAL to Improve the Quality of Service Delivery in Vocational Education in Indonesia**

*(Penggunaan SERVQUAL Untuk Penambahbaikan Kualiti Perkhidmatan Di  
Pendidikan Vokasional Di Indonesia)*

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### **ABSTRACT**

Vocational education at higher education in Indonesia is playing an important role in preparing students to be qualified/skilled workers to enter the job world. In order to meet the purpose, vocational education providers need to assess its current service quality. The case study employ SERVQUAL as the tool of analysis. In this study, gap between students' expectations and perceptions on service delivery are identified through questionnaires based on five dimensions, namely tangibles, reliability, responsiveness, assurance, and empathy. Besides, the questionnaires are also distributed to the program management to compare the result of gap of expectations and perceptions on service delivery between the students and the program management. The study's finding found two dimensions of SERVQUAL with the highest gap, namely tangibles and reliability. Both dimensions cover two important areas of services in vocational education the diploma programme management and should put into priority, which are teaching laboratories and practical learning, respectively.

**Key Words:** SERVQUAL, Expectation, Perception, Vocational Education

### **ABSTRAK**

*Pendidikan Tinggi Vokasi di Indonesia berperan penting dalam menyiapkan mahasiswa menjadi pekerja yang kompeten/terampil saat memasuki dunia kerja. Untuk itu, penyelenggara Pendidikan Tinggi Vokasi perlu mengevaluasi kualitas layanannya. Studi ini menerapkan SERVQUAL sebagai alat analisis untuk mengidentifikasi gap antara harapan dan persepsi mahasiswa atas penyelenggaraan layanan pendidikan tinggi vokasi melalui penyebaran kuesioner yang meliputi lima dimensi, yaitu wujud (tangibles), keandalan (reliability), respon (responsiveness), jaminan (assurance), dan empati (empathy). Kuesioner juga disebarakan kepada pengelola program untuk membandingkan gap harapan dan persepsi atas penyelenggaraan layanan antara mahasiswa dan pengelola program. Hasil studi menunjukkan dua dimensi SERVQUAL dengan gap terbesar yang harus mendapat prioritas, yaitu laboratorium dan pembelajaran secara praktik.*

*Kata Kunci: SERVQUAL, Harapan, Persepsi, Pendidikan Tinggi Vokasi*

### **INTRODUCTION**

There are growing concerns that vocational education is playing an important role in the development process, especially in the development of labour. Vocational education might act as a filter for human resource to enter the labour market because it will divide labour into different occupations with distinct quality, skill, and status (Clarke & Winch, 2007). UNESCO,

through its UNEVOC (International Centre for Technical and Vocational Education and Training), has also put special attention in monitoring the implementation and development of the vocational education system that aims at providing demand-driven and practice oriented programs to improve the employability and participation in lifelong learning.

Currently, vocational education is also becoming one focus of development in Indonesia. The Government of Indonesia is in the continuous process of developing the vocational education so that it can contribute more to the human resource development in Indonesia. To support this process, the Government of Indonesia has stipulated Presidential Decree (*Peraturan Presiden-Perpres*) No.8/2012 on Indonesia's National Qualifications Framework (*Kerangka Kualifikasi Nasional Indonesia-KKNI*). This national qualifications framework becomes the reflection of human resource quality in Indonesia that is endorsed by Law No.12/2012 on Higher Education.

It is stated in Law No.12/2012 on Higher Education article 16 that vocational education (diploma programme) aims at preparing students to be a highly qualified/skilled employees. In order to meet the learning objective, the students of vocational education are eligible to obtain educational services in accordance with their talent, interest, potential, and ability. Besides, the characteristics of vocational education are different from academic education. Generally, the required composition of practical and theoretical learning in vocational education is at a minimum of 60:40. Therefore, service providers of vocational education are required to deliver their best education services comprising facilities, learning environment, lecturer, academic staff, *etcetera*, which can support the learning process that meets vocational education needs.

It is expected that the more students feel satisfied with vocational education service quality, the more opportunity there will be for increasing student enrolment. Obviously, it is important for the vocational education service providers to provide the best service quality by accommodating students' expectation in order to succeed the learning as well as marketing process in vocational education.

Based on earlier explanation, this study aims at exploring the quality of services of vocational programmes in Indonesia based on a case study. This study is important since the result of the study would be a valuable input for significant improvement of service quality of vocational education in Indonesia. In addition, this study would enrich the discussion of service quality in vocational education.

## **LITERATURE REVIEW**

### **International Perspectives on Vocational Education**

Vocational education can be defined as “the provision of materials, activities and teaching that is designed to prepare people to function, at a specified level, in specific roles in the context of (usually) paid employment” (Lucas, Claxton, & Webster, 2010). In Anglo Saxon countries (United Kingdom, United States, Canada, Ireland, and Australia), vocational education is defined in simpler way, that is, “preparing young people and adults for working life which involves technical and practical processes” (Clarke & Winch, 2007, p.9). Further, Clarke and Winch mentioned that “especially in the United States and the United Kingdom, vocational

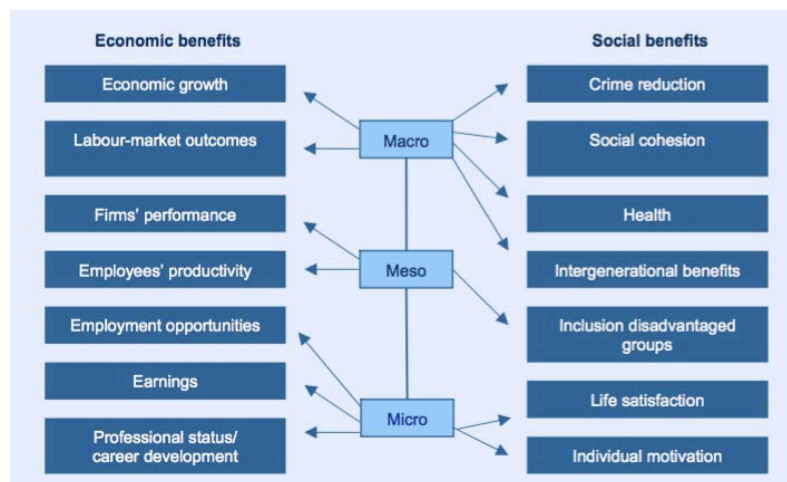
education is often seen as training for particular jobs in order to serve the needs of current employers” (p.10).

Vocational education has been continuously becoming a topic of discussion in international forums. According to Professor Chris Winch, there are three elements of vocational education (Lucas et al., 2010):

- 1) Application. This means that vocational education has to put technical knowledge into practice. However, it is sometimes difficult to ensure this condition.
- 2) Personal development. This includes the ability to act independently, including in the workplace, and the opportunity to have access to the broader cultural assets of the society just as people who have academic education do.
- 3) A civic role. This role should enable people to understand how their work and their place in the economy has an impact on the wider society.

Vocational education will continue to play an important role in the society since around half of all jobs in 2020 will require a medium level-qualification (Cedefop, 2011). The European Centre for the Development of Vocational Training (Cedefop) has identified several benefits of vocational education as depicted in Figure 1.

**Figure 1: Types Of Vocational And Education Training Benefits**



Source: Cedefop (2011)

## Services and Quality

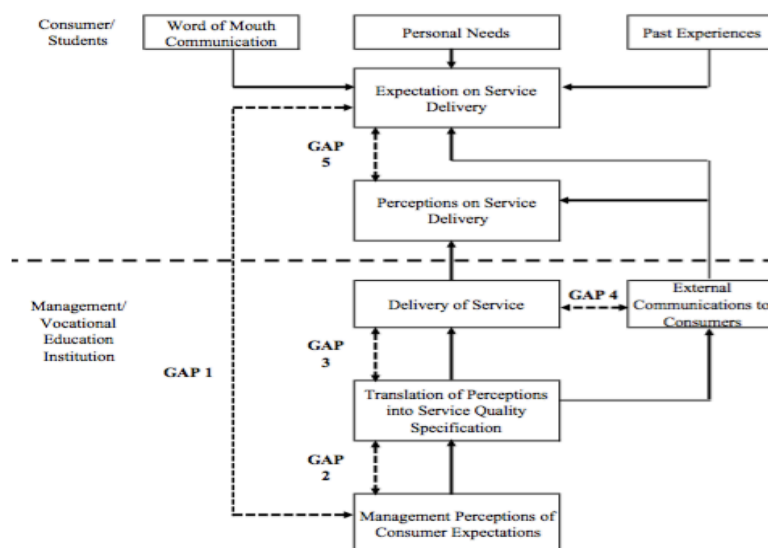
Consumers enjoy products and services to meet their needs and wants. However, the nature of services is different from products. Parasuraman, Zeithaml, Berry, & Parasuraman (1985) in their paper mentioned that services at least have three characteristics, namely intangibility, heterogeneity, and inseparability. Therefore, it is quite difficult to measure the quality of services rather than the quality of products. The quality of service is the perception that results from comparing the customer expectation with actual service performance which includes the evaluation of the process of service delivery.

Services have different characteristics from products. Kotler & Keller (2012, p. 356) define a service as “any act or performance one party can offer to another that is essentially intangible

and does not result in the ownership of anything. Its production may or may not be tied to a physical product.” We can measure the quality of a product objectively, for example from the durability or its defect. On the contrary, it is sometimes difficult to measure the quality of services objectively because of its intangible characteristic. Judgement or perception of customers is widely used in measuring the quality of services (Parasuraman, Zeithaml, & Berry, 1988). In order to successfully manage the quality of services, one famous strategy as the basis for identifying unsuccessful service delivery is the model of service quality as depicted in Figure 2. Based on the model of service quality, there are 5 gaps that cause unsuccessful service delivery. They are: (Parasuraman et al., 1985):

1. Gap 1, the gap between consumer expectations and management perceptions of those expectations will have an impact on the consumers’ evaluation of service quality.
2. Gap 2, the gap between management perceptions of consumer expectations and the firm’s service quality specifications will affect service quality from the consumers’ viewpoint.
3. Gap 3, the gap between service quality specifications and actual service delivery will affect service quality from the consumers’ standpoint.
4. Gap 4, the gap between actual service delivery and external communications about the service will affect service quality from a consumers’ standpoint.
5. Gap 5, the quality that a consumer perceives in a service is a function of the magnitude and direction of the gap between expected service and perceived gap.

**Figure 2: Model Of Quality Service**



Sources: Modified from Parasuraman, Zeithaml, Berry, & Parasuraman (1985)

## **SERVQUAL**

There are several measurement tools of service quality found in the literatures. This study employs SERVQUAL as the tool of analysis. This tool has been widely applied to assess quality of services in business (Parasuraman et al., 1988; Ramseook-munhurrun, Lukea-bhiwajee, & Naidoo, 2010; Ramseook-Munhurrun, Naidoo, & Lukea-Bhiwajee, 2010; Qadri, 2015) as well as in the education sector (José & Oliveira, 2009; Akhlaghi, Amini, & Akhlaghi, 2012; Schalkwyk & Steenkamp, 2014; Yousapronpaiboon, 2014; Đonlagić & Fazlić, 2015; Afridi & Khan, 2016). SERVQUAL has also been used to assess service quality of vocational education in several countries such as Czech Republic (Stasiak-betlejewska, Kaye, & Dyason, 1989), Malaysia (Ibrahim, Rahman, & Yasin, 2012), Iran (Akhlaghi et al., 2012), Poland (Pradela, 2015), etc.

Parasuraman et al., (1988) have determined five dimensions for the measurement of service quality using SERVQUAL which can be detailed as follows:

1. **Tangibles:** the physical evidence of the service, such as physical facilities, equipment, personnel, and communication materials
2. **Reliability:** ability to perform the promised service dependably and accurately, that is, how consistent is an organization in providing quality service and how much customers can rely on the firm.
3. **Responsiveness:** willingness to help customers and provide prompt service, that is, how much the staff members are ready and willing to provide services.
4. **Assurance:** knowledge and courtesy of employee and their ability to inspire trust and confidence, including the skills of the service providers.
5. **Empathy:** caring, individualized attention the firm provides its customers, that is, how much an organization understands customers' requirements.

## **METHODOLOGY**

This study applies empirical research using quantitative descriptive method based on the model of service quality (SERVQUAL) as depicted in Figure 2. This study is focused on Gap 5 (gap between expected service and perceived service) from the perspective of customers as well as service providers. The data of perceived service quality are obtained from the students of vocational education (consumer side) and the management/institution of vocational education (service provider side).

In order to get a better picture of analysis, the case study applies purposive sampling. The questionnaires are designed to be distributed to more than 150 students with the minimum criteria of having joined the programme for two semesters and obtained a GPA of 3.00 at the time of analysis. Respondents from all departments in the programme (Management, Finance and Banking, and Accounting) are included in the study. Besides students, the questionnaires are also distributed to the management of the programme that consists of the programme manager, the lecturers, and staff members of the programme.

The questionnaires used in the case study are developed based on five dimensions of the SERVQUAL model, namely tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1988). Each dimension is reflected in the question with areas of service quality as can be seen in Table 1. There are 17 questions developed to accommodate each

dimension of SERVQUAL. All questions are then applied to understand respondents' expectation as well as perception. In addition, there is a question to know the expectation and perception on overall service delivery of the case study. The responses are collected using 5 point Likert-scale from "strongly disagree" (1) to "strongly agree" (5). To ensure the validity and reliability of the data, the questionnaire is tested using Cronbach's Alpha in SPSS 20.

**Table 1: Dimension And Area Of Service Quality**

<b>Dimension</b>	<b>Areas of Service Quality</b>	<b>Number of Question</b>
Tangible	Availability of Program Building, Teaching Laboratories, Modern Teaching Equipment, Information Media, and Handouts	5
Reliability	Convenient Time of Service Delivery, Promptness of Service Delivery, Practical Learning	3
Responsiveness	Helpful Lecturers and Staff Members, Quick Response of Staff Members, Friendly and Professional Staff Members	3
Assurance	Good Communication Skill of Staff Members, Confident Staff Members, Competent Lecturers and Practitioners	3
Empathy	Equal Treatment from Staff Members, Easily Contacted Lecturers	3
Total		17

Based on (Parasuraman et al., 1988), the perceived service quality (Q) or the gap of service quality is expressed as:

$$(1) Q = P - E$$

where P and E are the ratings on the corresponding perceptions and expectations statements, respectively. The positive result shows that respondents are satisfied with the level of service quality. On the contrary, the negative result shows that the respondents' expectation regarding educational services, is more than what they perceive from the currently offered services.

## **EMPIRICAL RESULTS**

This study was conducted in the "Diploma Programme of Economy, Universitas Islam Indonesia" in Indonesia which has 736 students. Due to the semester break, only 123 students were able to participate as respondents and only 112 of them met the criteria. The instrument reliability was checked for the questionnaires distributed to students using SPSS 20 and found the Cronbach's alpha to be 0.968.

The profile of respondents from students can be seen in Table 2. Based on the table, the number of respondents from each department is almost equal, however the respondents are dominated by students who joined the programme only since 2015.

**Table 2: Profile Of Respondents (Students)**

Items		Number of Respondents
Average GPA	3.00 – 3.49	58
	3.50 – 4.00	54
Year of Enrolment	2015	94
	2014	18
Department	Accounting	31
	Banking and Finance	49
	Management	32
Age	18 years old	12
	19 years old	64
	20 years old	31
	21 years old	4
	≥ 22 years old	1
Semester	3	94
	6	18
Sex	Male	28
	Female	84

The result of SERVQUAL analysis for the respondents from students can be seen in Table 3. In this study, the average expectation and average perception for each item of questionnaire are obtained based on the ratings from students. After the gap for each question is identified, the next step is identifying the average gap for each dimension. Based on Table 3, it is found that the biggest gap occurs for reliability then followed by tangibility, empathy, responsiveness, and assurance. It means that the service quality in the Diploma Programme of Economy, Universitas Islam Indonesia should be improved in order to meet the expectation of students, although the gap between expectation and perception is relatively low. From all dimensions, reliability (reflected in Convenient Time of Service Delivery, Promptness of Service Delivery, and Practical Learning) has the widest gap (lowest quality) while assurance (Good Communication Skill of Staff Members, Confident Staff Members, Competent Lecturers and Practitioners) has the lowest gap (highest quality). This result is important to be followed up since practical learning and the availability of practitioners are the basic component of vocational education. Based on the result, although there are sufficient practitioners in the institution, more practical learning is requested.

**Table 3: Results Of Servqual Analysis (Students)**

<b>Dimensions</b>	<b>Item</b>	<b>Expectation (Average)</b>	<b>Perception (Average)</b>	<b>Gap (P-E)</b>	<b>Average Gap</b>
Tangibility	1	4.72	3.71	-1.01	-0.93
	2	4.71	3.54	-1.17	
	3	4.76	3.73	-1.03	
	4	4.74	3.94	-0.80	
	5	4.60	3.96	-0.63	
Reliability	1	4.67	3.79	-0.88	-1.03
	2	4.77	3.63	-1.14	
	3	4.76	3.71	-1.05	
Responsiveness	1	4.74	4.01	-0.73	-0.85
	2	4.71	3.78	-0.94	
	3	4.71	3.83	-0.88	
Assurance	1	4.67	3.88	-0.79	-0.76
	2	4.66	3.87	-0.79	
	3	4.69	3.99	-0.70	
Empathy	1	4.74	3.88	-0.86	-0.87
	2	4.68	3.78	-0.90	
	3	4.72	3.88	-0.85	
All Services		4.60	3.59	-1.01	

To compare the perception of service quality between the students as customers and the management of diploma programme as the service provider, the same questionnaires were also distributed to the management of the Diploma Programme. There are 21 respondents from the total of 29 members of the diploma programme management as can be seen in Table 4. The respondents from the diploma programme management are dominated by lecturers. The instrument reliability was checked for the questionnaires distributed to students using SPSS 20 and found the Cronbach's alpha to be 0.938.

**Table 4: Profile of Respondents (Management)**

<b>Items</b>		<b>Number of Respondents</b>
Position	Programme Manager	2
	Lecturer	11
	Academic Staff	8
Academic Background	Senior High School	2
	Diploma	3
	Undergraduate	3
	Master	13
Sex	Male	7
	Female	14
Age	20-25 years old	6

	26-30 years old	7
	31-35 years old	1
	36-40 years old	4
	41-45 years old	2
	≥ 46 years old	1
Duration of Work	<1 years	8
	1-2 years	4
	3.1-4 years	4
	>5 years	5

The result of SERVQUAL analysis for the respondents from the Diploma programme can be seen in Table 5. The same procedure with SERVQUAL for the students is also applied for the management. It is found that the biggest gap occurs for reliability then followed by tangibility, empathy, assurance, and responsiveness. Different from the perspectives of students, responsiveness is the best dimension of service quality from the perspectives of the management of the programme. Responsiveness covers helpful lecturers and staff members, quick response of staff members, and friendly and professional staff members. Nevertheless, similar to the perspectives of the students, the dimension of reliability also shows the widest gap.

**Table 5: Results Of Servqual Analysis (Management)**

Dimensions	Item	Expectation (Average)	Perception (Average)	Gap (P-E)	Average Gap
Tangibility	1	4.81	4.19	-0.62	-0.91
	2	4.81	3.57	-1.24	
	3	4.86	4.05	-0.81	
	4	4.81	4.33	-0.48	
	5	4.81	3.38	-1.43	
Reliability	1	4.90	3.86	-1.05	-1.02
	2	4.81	3.95	-0.86	
	3	4.71	3.57	-1.14	
Responsiveness	1	4.76	4.38	-0.38	-0.63
	2	4.76	4.05	-0.71	
	3	4.76	3.95	-0.81	
Assurance	1	4.67	3.81	-0.86	-0.67
	2	4.71	3.95	-0.76	
	3	4.86	4.48	-0.38	
Empathy	1	4.86	4.05	-0.81	-0.79
	2	4.76	4.05	-0.71	
	3	4.71	3.86	-0.86	
All Services		4.71	3.81	-0.90	

Comparison of service quality from the perspective of students as well as the perspective of programme managers can be seen in Table 6. Based on the table, the total average gap of service quality from the perspectives of students is highest compared to those of the institution. The total average gap of service quality from the perspective of students is -4.43 while from the perspective of the management of diploma programme is -4.03. From Table 6, it can also be seen the weighted gap from each dimension. It is found that from both perspectives, tangible and reliability have the biggest weighted gap, which is more than 20%.

**Table 6: Comparison Of Service Quality From The Perspective Of Students As Well As The Perspective Of Programme Manager**

Dimensions	Students		Institution	
	Average Gap	Weighted Gap (%)	Average Gap	Weighted Gap (%)
Tangible	-0.93	20.94	-0.91	22.71
Reliability	-1.03	23.15	-1.02	25.24
Responsiveness	-0.85	19.19	-0.63	15.77
Assurance	-0.76	17.11	-0.67	16.56
Empathy	-0.87	19.60	-0.79	19.72
<b>TOTAL</b>	<b>-4.43</b>	<b>100</b>	<b>-4.03</b>	<b>100</b>

## CONCLUSION

Vocational education aims at preparing students with technical and practical process to be ready for working and lifelong learning. The empirical study shows that, from the five dimensions of SERVQUAL, there are two dimensions with the lowest service quality, namely tangible (consists of availability of program building, teaching laboratories, modern teaching equipment, information media, and handouts) and reliability (consists of convenient time of service delivery, promptness of service delivery, practical learning) dimensions. These findings need to be put into attention since there are areas of services in both dimensions which are important for vocational education, namely teaching laboratories and practical learning. These are required in vocational education to support the realisation of the practical learning process and ensure that students have the required skills and qualifications. The well-equipped laboratories and various related practical leaning can be sources for students as well as the lecturers to improve their competency and achieve skills development.

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