

APPLYING SERVQUAL TO IMPROVE THE QUALITY OF SERVICE DELIVERY IN VOCATIONAL EDUCATION IN INDONESIA

Rr Sita Dewi Kusumaningrum
Department of Management,
Diploma Program of Economy,
Universitas Islam Indonesia, Indonesia
Email: sita.kusumaningrum@uii.ac.id

ABSTRACT

Vocational education at higher education in Indonesia is playing 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 the case 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 case study found that there are two dimensions of SERVQUAL with highest gap, namely tangibles and reliability. Since both dimensions cover two important area of services in vocational education (teaching laboratories and practical learning), the diploma program management should put it into priority.

Keywords: SERVQUAL, Expectation, Perception, Vocational Education

1. INTRODUCTION

There are growing concerns that vocational education is playing important role in the development process, especially in the development of labour. Vocational education might act as a filter for human resource to entry to 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 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 contributes 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 program) aims at preparing students to be a high qualified/skilled employee. 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 characteristic of vocational education is different from academic education. Generally, the required composition of practical and theoretical learning in vocational education is minimum 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 of vocational education characteristics.

It is expected that the more students feel satisfied with vocational education service quality, the more also opportunity 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 program in Indonesia based on a case study. The result of study would be a valuable input for significant improvement of service quality of vocational education in Indonesia, especially for the case study. In addition, this study would enrich the discussion of service quality in vocational education.

2. LITERATURE REVIEW

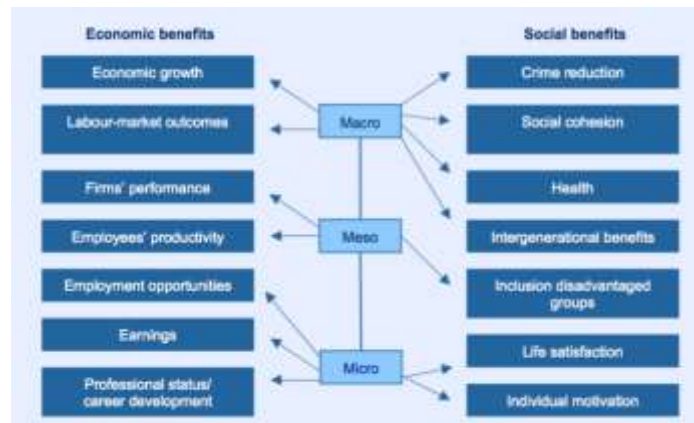
2.1 International Perspectives on Vocational Education

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 involve technical and practical process” (Clarke & Winch, 2007). 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.”

Vocational education has been continuously becoming a topic of discussion in international forum. 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 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.



Source: Cedefop (2011)

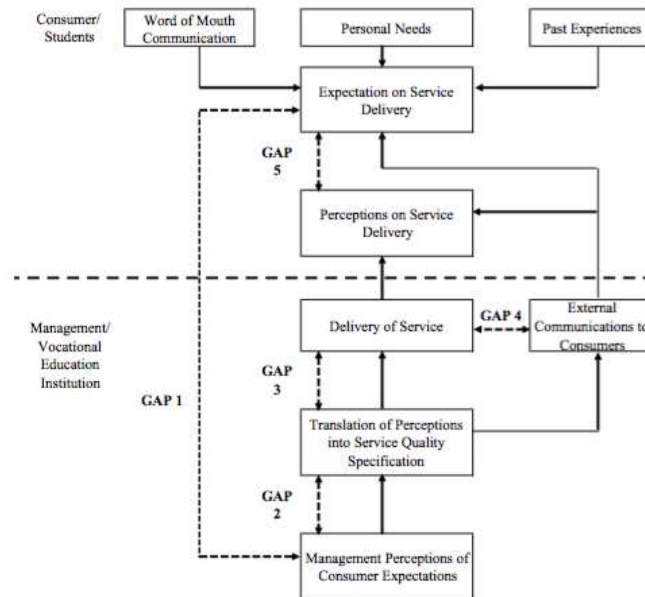
Figure 1: Types of VET Benefits

2.2 Services and Its 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 mention 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 perception that results from comparing the customer expectation with actual service performance which includes the evaluation of the process of service delivery.

Services has different characteristic from products. Kotler & Keller (2012) 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 customer is widely used in measuring the quality of services (Parasuraman, Zeithaml, & Berry, 1988). In order to successfully manage the quality of services, one of 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 as follows (Parasuraman et al., 1985):

1. Gap 1, the gap between consumer expectations and management perceptions of those expectations will have an impact on the consumer's 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 consumer's viewpoint.
3. Gap 3, the gap between service quality specifications and actual service delivery will affect service quality from the consumer's standpoint.
4. Gap 4, the gap between actual service delivery and external communications about the service will affect service quality from a consumer's 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.



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

Figure 2: Model of Service Quality

2.3 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; Qadri, 2015; Ramseook-munhurrin, Lukea-bhiwajee, & Naidoo, 2010; Ramseook-Munhurrin, Naidoo, & Lukea-Bhiwajee, 2010) as well as in education sector (Afridi & Khan, 2016; Akhlaghi, Amini, & Akhlaghi, 2012; Đonlagić & Fazlić, 2015; José & Oliveira, 2009; Schalkwyk & Steenkamp, 2014; Yousapronpaiboon, 2014). SERVQUAL also has been used to assess service quality of vocational education in several countries such as Malaysia (Ibrahim, Rahman, & Yasin, 2012), Iran (Akhlaghi et al., 2012), Czech Republic (Stasiak-betlejewska, Kaye, & Dyason, 1989), 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 customer 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 provide its customers, that is how much an organization understands customer's requirements.

3. 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 customer as well as service provider. 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 better picture of analysis, the case study applies purposive sampling. The questionnaires are designed to be distributed to more than 150 students with criteria of minimum have been joining the program for two semesters and obtained of GPA of 3.00 at the time of analysis. Respondents from all departments in the program (Management, Finance and Banking, and Accounting) are included in the study. Besides students, the questionnaires are also distributed to the management of program that consist of the program manager, the lectures, and staffs of program.

The questionnaires used in the case study is developed based on five dimensions of 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 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

Dimension	Areas of Service Quality	Number of Question
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 Staffs, Quick Response of Staffs, Friendly and Professional Staffs	3
Assurance	Good Communication Skill of Staffs, Confident Staffs, Competent Lecturers and Practitioners	3
Empathy	Equal Treatment from Staffs, Easily Contacted Lecturers	3
	Total	17

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

$$Q = P - E$$

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.

4. EMPIRICAL RESULT

This study was conducted in the “Diploma Program 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 is 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 program only since 2015.

Table 2: Profile of Respondents from Students

	Items	Number of Respondents
Average of GPA	a. 3.00 – 3.49	58
	b. 3.50 – 4.00	54
Year of Enrolment	a. 2015	94
	b. 2014	18
Department	a. Accounting	31
	b. Banking and Finance	49
	c. Management	32
Age	a. 18 years old	12
	b. 19 years old	64
	c. 20 years old	31
	d. 21 years old	4
	e. \geq 22 years old	1
Semester	a. 3	94
	b. 6	18
Sex	a. Man	28
	b. Woman	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 Program 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 Staffs, Confident Staffs, 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 basic component of vocational education. Based on the result, although there are sufficient practitioners in the institution, more practical learnings are requested.

Table 3: Results of SERVQUAL Analysis (Student)

Dimensions	Item	Expectation (Average)	Perception (Average)	Gap (P-E)	Average Gap
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 program as service provider, the same questionnaires were also distributed to the management of the Diploma Program. There are 21 respondents from the total of 29 member of diploma program management as can be seen in Table 4. The respondents from diploma program 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 is 0.938.

Table 4: Profile of Respondents from Students

	Items	Number of Respondents
Position	a. Program Manager	2
	b. Lecturer	11
	c. Academic Staff	8
Academic Background	a. Senior High School	2
	b. Diploma	3
	c. Undergraduate	3
	d. Master	13
Sex	a. Man	7
	b. Woman	14
Age	a. 20-25 years old	6
	b. 26-30 years old	7
	c. 31-35 years old	1

Length of Work	d. 36-40 years old	4
	e. 41-45 years old	2
	f. \geq 46 years old	1
	a. <1 years	8
	b. 1-2 years	4
	c. 3.1-4 years	4
	d. >5 years	5

The result of SERVQUAL analysis for the respondents from the Diploma program 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 manager of program. Responsiveness covers helpful lecturers and staffs, quick response of staffs, and friendly and professional staffs. Nevertheless, similar to the perspectives of the students, the dimension of reliability also shows the widest gap.

Table 5: Results of SERVQUAL Analysis (Institution)

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 program manager can be seen in Table 6. Based on the table, the total average gap of service quality from the perspectives of students is highest compare to those of Institution. The total average gap of service quality from the perspective of students is -4.43 while from the perspectives of management of diploma program is -4.03. From the 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, that is more than 20%.

Table 6: Comparison of Service Quality from the Perspective of Students as well as the Perspective of Program 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
TOTAL	-4.43	100	-4.03	100

5. 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 lowest service quality, namely tangible (consist of availability of program building, teaching laboratories, modern teaching equipment, information media, and handouts) and reliability (consist of convenient time of service delivery, promptness of service delivery, practical learning) dimensions. These findings need to be put into attention since there are area of services in both dimensions which important for vocational education, namely teaching laboratories and practical learning. These are required in vocational education to supports the realization of the practical learning process and ensures that students have required skill and qualifications. The well-equipped laboratories and various related practical leaning can be sources of students as well as the lecturers to improve their competency and achieve skills development.

REFERENCES

- Private Universities/Institutes of Peshawar Using SERVQUAL Model. *City University Research Journal*, 6(1), 61–69.
- Akhlaghi, E., Amini, S., & Akhlaghi, H. (2012). Evaluating Educational Service Quality in Technical and Vocational Colleges using SERVQUAL Model. *Procedia - Social and Behavioral Sciences*, 46, 5285–5289. <http://doi.org/10.1016/j.sbspro.2012.06.424>
- Cedefop. (2011). *The benefits of vocational education and training. Director* (Vol. VI). <http://doi.org/10.2801/43027>
- Clarke, L., & Winch, C. (2007). *Vocational Education International approaches, developments and systems*. (L. Clarke & C. Winch, Eds.). New York: Routledge.
- Donlagić, S., & Fazlić, S. (2015). Quality Assessment in Higher Education Using the Servqual Model. *Management*, 20(1), 39–57.
- Ibrahim, M. Z., Rahman, M. N. A., & Yasin, R. M. (2012). Assessing Students Perceptions of Service Quality in Technical Educational and Vocational Training (TEVT) Institution in Malaysia. *Procedia - Social and Behavioral Sciences*, 56(Ictihe), 272–

283. <http://doi.org/10.1016/j.sbspro.2012.09.655>

- José, O., & Oliveira, D. (2009). Adaptation and application of the SERVQUAL scale in higher education. *POMS 20th Annual Conference*, 55(14).
- Kotler, P., & Keller, K.L. (2012). *Marketing Management 14th Ed.* New Jersey: Pearson.
- Lucas, B., Claxton, G., & Webster, R. (2010). *Intelligence Mind the gap in the flesh.*
- Parasuraman, a, Zeithaml, V. a, & Berry, L. L. (1988). SERQUAL: A Multiple-Item scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*. [http://doi.org/10.1016/S0148-2963\(99\)00084-3](http://doi.org/10.1016/S0148-2963(99)00084-3)
- Parasuraman, a, Zeithaml, V. a, Berry, L. L., & Parasuraman. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*. <http://doi.org/10.2307/1251430>
- Pradela, A. (2015). Quality of Graduates' Preparation for Labour Market – A ServQual Analysis. *Procedia - Social and Behavioral Sciences*, 174, 1671–1677. <http://doi.org/10.1016/j.sbspro.2015.01.820>
- Qadri, U. A. (2015). Measuring Service Quality Expectation and Perception Using SERVQUAL: A Gap Analysis. *Business and Economics Journal*, 6(3), 1–7. <http://doi.org/10.4172/2151-6219.1000162>
- Ramseook-munhurrun, P., Lukea-bhiwajee, S. D., & Naidoo, P. (2010). Service quality in the public service. *International Journal of Marketing and Marketing Research*, 3(1), 37–50. <http://doi.org/10.1017/CBO9781107415324.004>
- Ramseook-Munhurrun, P., Naidoo, P., & Lukea-Bhiwajee, S. D. (2010). Measuring Service Quality: Perceptions of Employees. *Global Journal of Business Research (GJBR)*, 4(1), 47–58. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=47108037&site=ehost-live>
- Schalkwyk, R. D. van, & Steenkamp, R. J. (2014). The exploration of service quality and its measurement for private higher education institutions. *Southern African Business Review*, 18(2), 83–107.
- Stasiak-betlejewska, R., Kaye, M., & Dyason, M. (1989). The Services Quality Level Assessment at The Technical University Using The Servqual Method. *Journal on Efficiency and Responsibility in Education and Science*, 7(3–4), 53–58. <http://doi.org/10.7160/eriesj.2014.070302.Introduction>
- Yousapronpaiboon, K. (2014). SERVQUAL: Measuring Higher Education Service Quality in Thailand. *Procedia - Social and Behavioral Sciences*, 116, 1088–1095. <http://doi.org/10.1016/j.sbspro.2014.01.350>