Service Quality Dimensions and Students' Performance: Case Study in the Vocational Program of Universitas Indonesia

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Abstract. Service quality is complex because it is a multi-dimensional construct. Until recently, there has been no consensus among researchers on what the best dimensions and models are that can be used to evaluate the quality of services in college learning institutions. Even though there are more recent models, the service quality (SERVQUAL) model is often used to measure high quality of service. In this study, the effects of the dimensions of the SERQUAL model on student performance were evaluated. Questionnaires were distributed online. The structural equation model was employed to analyze the data. The results revealed no difference in student performance (Grade Average Point) between those who were selected by the PPKB-UI and SIMAK-UI. Although the tangible dimensions of the SERQUAL model, which includes physical appearance, infrastructure, and modern communication, were ranked highest by the respondents, the dimensions had no statistically significant impact on learning outcomes.

Keywords: structural equation model, quality services, grade average point, Vocational Education

1 Introduction

During the last decade, there has been an increasing number of university graduates. Consequently, there is much, competition among university graduates. Only students with the best qualifications are able to find employment in the white-collar job market. Grade point average (GPA) is an indicator of students' qualifications. Some industries use GPA to screen candidates for jobs. Those with higher GPAs are usually more successful (Nitrogen & Anthony, 2017). Improving the quality of students is an objective of education institutions. Service quality is an important factor that is considered when managing an education institution (Adinegara & Eka Putra, 2016).

However, students come from different backgrounds that include factors such as intellectual ability, skills, motivations, perceptions, interests, and family life. These factors may affect their academic achievements. Furthermore, some of the obstacles students face are not necessarily due to low intelligence but can also be attributed to other factors such as service quality, school environment, and family environment.

Although service quality is an interesting topic to explore, there is no consensus on service quality dimensions that can be employed to evaluate the quality of service in higher education. However, the SERVQUAL model is currently the most commonly used instrument to measure high quality of service even though there are newer models such as PHED, HEdPERF, and HiEdQual (Evans & Thaddeus, 2017). The SERVQUAL model has five dimensions: Tangible, reliability, responsive, assurance, and empathy (Evans & Thaddeus, 2017; Aida, Khalim, & Maznah, 2013; Đonlagić & Fazlić, 2015; Mukondeleli, 2014; Herminingsih, 2013).

Maharani Br Purba's essay titled, "The Analysis of Service Quality Influence on Academic Achievement of Higher Education Students X," states that only two attributes significantly affect student learning outcomes, namely, the ability of teaching staff to create an active and fun learning atmosphere in the classroom, and the motivation of the faculty during consultation (Purba, 2009). Similarly, the active and fun learning atmosphere in the classroom, consultation services outside teaching and learning activities, providing motivation when the learning and teaching session, and organization significantly influence the academic achievement of students at Kadiri University (Safi'i, Sutriyono, & Handoko, 2015).

Besides the dimensions of service quality, the reason for students' choice of study programs in universities is also interesting. Approximately 86.66% of the students are interested in studying a course in accounting in the Vocational Program UI (Yuliyanto, 2017) because they wish to pursue a career in accounting. The same results were also obtained from a survey conducted by Bakrie School of Management, which showed that 62.68% of the Accounting Study Program students wanted to pursue a career in the profession (Rochyati, 2008).

The objective of the study was two-fold: to determine whether the dimensions of SERVQUAL affect students' GPA and to investigate whether the selection method affects students' GPA.

2. Method

Primary data were collected from students in the Vocational Education Program of the University of Indonesia by means of questionnaires that were distributed online. The questionnaire was designed to measure the service quality of the Vocational Education Program and comprised five dimensions: tangible, reliability, responsive, assurance, and empathy (Adinegara & Eka Putra, 2016; Evans & Thaddeus, 2017; Aida, Khalim, & Maznah, 2013). Each dimension consists of several indicators that are illustrated in Figure 1.Descriptive analysis and the structural equation model were employed to analyze the data and thus, obtain more comprehensive results about the relationship between GPA and the dimensions of service quality.
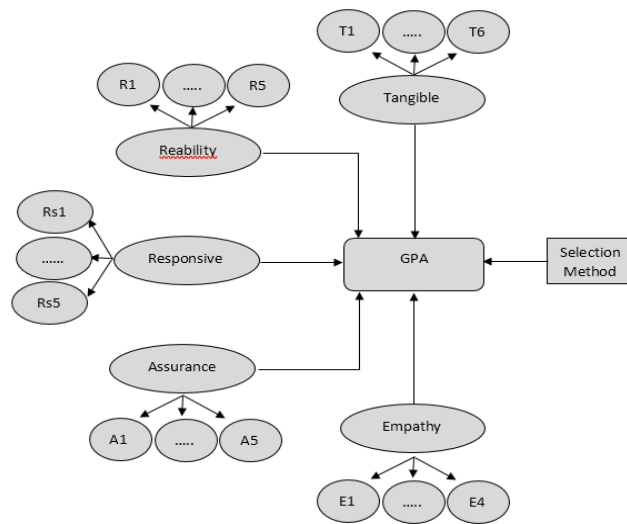

Figure 1: The Research Model

Four latent variables are depicted in the research model (Figure 1), namely, tangible, reliability, responsive, assurance, and empathy. Each latent variable has various indicators. The GPA comprises three categories, namely, cumlaude (*dengan pujian)*, very satisfied (*sangat memuaskan*), and satisfied (*memuaskan*) (Table 1). The selection method had two categories: PPKB-UI and SIMAK-UI.

Table 1: Categories of GPA

No	Range of GPA	Category
1	Below 2.75	Satisfied
2	2.75 < GPA < 3.5	Very Satisfied
3	Above 3.5	Cumlaude

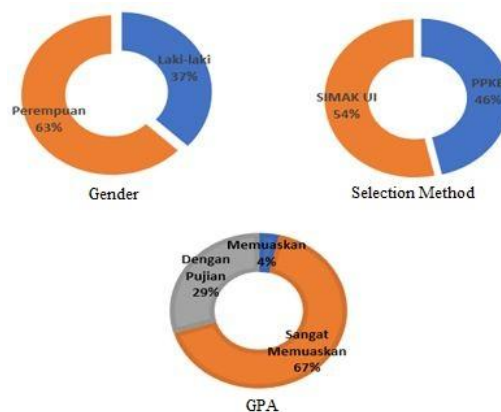## 3. Results and Discussion

Figure 2: Demographics of Respondents

The results revealed that approximately 63% of the UI vocational students were female (*perempuan*) students (Figure 2). According to classroom observations, in general, the number of female students in each class was more sophisticated than the number of male students. The profiles of the respondents revealed 67% had very satisfactory GPA scores and 29% and 4% had cumlaude and satisfactory scores, respectively. More respondents selected SIMAK-UI than PPKB-UI.

To determine the reasons students chose courses in the Vocational Program UI, they had to rank seven reasons in order of preference. These reasons are presented in Table 2.

Table 2: The Ranking of Accounting Choice Reason

The Ranking	The Reasoning
1	The name of Universitas Indonesia
2	Job Prospects
3	Interest in a study program
4	The profession of graduates of the study program
5	Request/parental direction
6	Background of senior high school education
7	Peer/school influence

As shown in Table 2, the renowned name of the Universitas Indonesia, job prospects, and interest in the accounting program were the three primary reasons the students chose the program. The independence the students displayed was evident in that peer influence was ranked last.

As noted previously, one of the objectives of the study was to determine the effect of the selection method (PPKB-UI and SIMAK-UI) on student learning outcomes (GPA). The Mann Whitney test, which requires open paired data (mutually free) of two samples and minimally ordinal measurement scales (Hussein, 2015), was employed. The respondents were not asked for their IPK value but had to indicate their GPA level instead. SPS Statistics was used to obtain the following results:

Table 3: Data Analysis

Ranks

	JenisSeleksi	N	Mean Rank	Sum of Ranks
Kategori_IP	PPKB	29	29.24	848.00
	SIMAK UI	25	25.48	637.00
	Total	54		

Test Statistics[a]

	Kategori_IP
Mann-Whitney U	312.000
Wilcoxon W	637.000
Z	-.989
Asymp. Sig. (2-tailed)	.323

a. Grouping Variable: JenisSeleksi

The Sig (2-tailed) value was 0.323 based on the p-value of $\alpha = 0, 05$ (5%). Thus, Ho was not rejected. No statistical difference in the performance of students selected by PPKB-UI and SIMAK-UI was found. GPA was used to indicate performance.

The ranking of service quality dimensions revealed tangible factors were ranked first followed by reliability, responsive, assurance, and empathy factors. Thus, vocational program students view physical conditions, modern facilities, academic services, and media for communication as the most important factors to improve service quality. Empathy, which comprised individual attention given by the company to customers, including the ease of contacting the company, the ability of employees to communicate with customers, and the company's efforts to understand the wants and needs of its customers, was considered the least important.

Table 4: Average Score of SERVQUAL Dimension

No	Dimension	Average Score
1	Tangible	2.346
2	Reliability	2.385
3	Responsive	2.442
4	Assurance	2.712
5	Empathy	2.885

The relation of the service quality dimensions and student learning results are depicted in a model in Figure 1. An examination of the model reveals that in this study latent variables were used because the dimensions of service quality could not be observed directly. SmartPLS 3 was used to analyze the data. This application was chosen because of the small number of respondents (53). If Lisrel or AMOS had been utilized, an error would have resulted.

The results of running the first model showed that all the indicators of the tangible dimensions had values less than 0.6. Similarly, E1, E2, and R1 had values less than 0.6. Therefore, the tangible dimensions as well as E1, E2, and R1 were removed from the model (Antara, Kencana, & Ketut, 2013). Subsequently, a re-analysis was conducted. The results thereof are as follows:
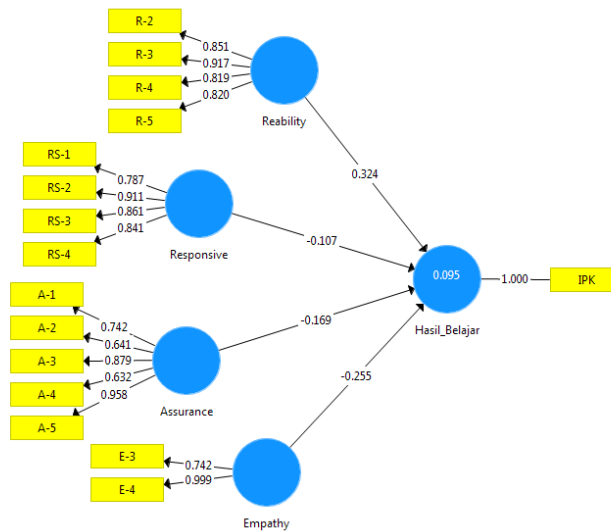

Figure 3: The Final Result of Research Model

The results of the path coefficient test (Figure 3) demonstrated that both the initial model and the enhanced model found that all the dimensions were statistically insignificant. Thus, Ho was not rejected. In other words, the dimensions of quality (tangible, reliability, responsive, assurance and empathy) did not influence student learning significantly.

4. Limitations and Recommendations

The study was limited in that there very few participants and campuses involved. It is recommended that future studies have more participants and involve more campuses. Furthermore, it is recommended that the actual IP value be employed instead of GPA to classify graduates.

5. Conclusion

- The following conclusions can be made: Tangible factors play the most important role in the SERVQUAL dimensions.
- The selections methods, namely, PPKB and SIMAK-UI had no influence on the learning results of the students.

- The five quality dimensions, which include tangible, reliability, responsive, assurance and empathy factors do not have a statistically significant effect on the quality of student learning outcomes.

Because students valued tangible factors, management should pay more attention to the appearance of the building, environmental hygiene, facilitation classes, and teaching.

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