The Influence of the Dimensions of Higher Education Service Quality on Student Satisfaction

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ABSTRACT

The quality of service at the institution is one of the essential factors for service users. Higher education services are one of the institutions that need to be studied, the extent to which the quality of services is provided. This study examines the effect of higher education service quality on student satisfaction. This study uses a quantitative approach. The sampling technique used the slovin method. The primary data in this study were obtained from the perceptions of students who filled out and returned the questionnaire, analyzed using the multiple regression analysis techniques. The analysis and discussion results show that the dimensions of service quality (reliability, responsiveness, assurance of empathy, and physical evidence) have a positive effect on student satisfaction. It is recommended that service quality, such as reliability, responsiveness, empathy, and physical evidence, be further improved, considering that the effect is small except for guarantees.

Introduction

The era of globalization is marked by increasingly fierce competition. Educational institutions are required to show better performance and services to compete and maintain their existence or even develop and progress. With The deregulation of educational institutions some time ago, which was marked by the increasing number of educational institutions offering services in education. This causes the situation and condition of the management of educational institutions in Indonesia to be increasingly competitive (Efferi, 2014). The external environment of higher education is a strategic environment where competence continues to occur and cannot be stopped or stopped. Due to the need for higher education, the new concept can

achieve service excellence to be able to retain students' scores and their participation in higher education. Thus, as it should be, higher education is present in balance with quality. Therefore, managers of educational institutions must be more professional and conduct the competition in a fair climate so as not to harm the educational institution concerned, the government, and the community (Galeeva, 2016).

This increasingly fierce competition certainly spurs all universities to improve their quality, especially with national accreditation, both for PTN and PTS, and the era of campus autonomy. If without improvement and attention to quality, an educational institution will run out of being run over by the wheels of competition. The community highlights the quality of higher education, especially in terms of graduates from these universities who can be accepted into the job market. The sooner graduates of a college get a job, the more people value the quality of the college. It can even provide high satisfaction for customers, in this case, are students and graduate users—the quality of academic services on student satisfaction (Mulyawan & Rinawati, 2017). As a strategic step in facing increasingly fierce competition, each university is always expected to be developed based on continuous quality improvement. This will only happen if the development program is planned and implemented based on the ability and willingness commensurate with the current needs. Therefore, universities must be able to conduct self-evaluation or self-introduction regarding the quality of their performance (Nurdin, 2009).

This study deals with student satisfaction with higher education services, which can be used as recommendations for making policies for higher education managers. The Department of Accounting, Faculty of Economics, the University of Semarang, as one of the higher education institutions, must prioritize student satisfaction as customers by providing the best service. Some areas of service that must be developed sustainably include study program curriculum, learning process, human resources (lecturers, employees, technicians), students, facilities and infrastructure, academic atmosphere, research and publications, community service, institutional management, information systems, and domestic/foreign cooperation. Based on this description, this research is formulated as follows: how is the effect of service quality based on dimensions (reliability, responsiveness, assurance, empathy, physical evidence) on student satisfaction. Therefore, this study aims to analyze the effect of the quality of educational services based on the dimensions (reliability, responsiveness, assurance, empathy, physical evidence) on student satisfaction.

Literature Review

Customer satisfaction

One of the marketing concepts, namely trust, states that an organization's business goals can be best achieved by providing complete satisfaction to end-users, namely customers (Kotler, 2017). The ability to satisfy customer needs, expectations, and desires are the only

criterion by which quality will be determined (Saktiani, 2015). Sharing marketing literature has described a different side between product quality and customer satisfaction. These different sides can also be found in various literature discussing professional services/services. Service quality is often seen as having a close relationship with client/student satisfaction (Mulyawan & Rinawati, 2017). The goal of a business or organization is to create and retain customers. In the Total Quality Management (TQM) approach, quality is determined by the customer. Therefore, organizations can realize and appreciate the meaning of quality by understanding processes and customers. The existence of customer satisfaction can provide several benefits, including: (1) the relationship between the company and its customers become harmonious. (2) provides a reasonable basis for repeat purchases. (3) can encourage the creation of customer loyalty. (4) form a recommendation by word of mouth that is beneficial for the company. (5) the company's reputation is good in customers' eyes. (6) the profit earned can increase (Kardoyo & Nurkhin, 2016).

Customer satisfaction is the level of one's feelings after comparing the perceived performance or results with expectations. So the level of satisfaction is a function of the difference between perceived performance and desired expectations. If performance is below expectations, the customer is disappointed. If performance matches customer expectations, they will be satisfied. A benchmark is needed to find out customer satisfaction, namely when a balance is achieved from what is expected

with what is felt, for example, in consuming services. If something the customer feels exceeds their expectations, he will be satisfied. To assess something that is felt, the measure of quality is one of the criteria used as consideration. Satisfaction includes three things: perceived quality, perceived value, and customer expectations (Nasukah, 2014). The perceived quality of customers is obtained through the experience of consuming. Consumers will be impressed and respond to what is experienced, including consumer goods and services. The perceived value of service quality will be related to the expectations attached to the customer. These values include product, service, employee, and image values. The product's value is influenced by the quality and advantages of the service, such as uniqueness.

Meanwhile, the value of services is related to the facilities and conveniences offered and convenient information. Employee value is shown from the ability to provide services. The image is influenced by customer perceptions of performance (Kardoyo & Nurkhin, 2016). Customer satisfaction can be measured. Companies use four methods to determine customer satisfaction, namely the complaint and suggestion system, consumer satisfaction surveys, shadow buyers, and consumer loss analysis (Kotler, 2017).

Service quality

It is undeniable that product quality is a fundamental key to the success of an organization. An organization's ability to produce high-quality goods and services is the key to success for future success (Darwyansyah, 2017). The main

attributes that affect service quality are expected service and perceived service. If the service received or perceived follows what is expected, the service quality is perceived as good and satisfactory. If the service received exceeds customer expectations, the service quality is perceived as ideal quality. Conversely, if the service quality obtained is lower, the service quality is poor. Thus, whether or not the quality of service is reasonable depends on the ability of service providers to meet customer expectations (Galeeva, 2016). Five kinds of developing quality perspectives. These five perspectives can explain why quality is interpreted differently. The five perspectives are: (1) Transcendental approach views quality as innate excellence, where quality can be felt or known but is challenging to define and operationalize. This point of view is usually applied in the world of art, (2) Product-based approach assumes that quality is a characteristic or attribute that can be quantified and measured. (3) User-Based Approach This approach is based on the idea that quality depends on the person who sees it so that the product that best satisfies one's preferences is the highest quality product. (4) Manufacturing-based Approach, this approach is supply-based and mainly pays attention to engineering and manufacturing practices and defines quality as conformance to or equal to requirements. (5) Value-Based Approach This approach looks at quality in terms of value and price (Ali & Raza, 2017).

Quality of service in five main dimensions: (1) Reliability (Reliability) Reliability is the ability to provide services under the promises offered. In a broad sense, reliability can be said to be a measure of achievement. Someone who can complete his work well in a predetermined time is said to be reliable. The concept of reliability is not only used in human activities but the functional performance of manufactured objects such as equipment or electronic components, machine components, and so on. A functional part has a confident performance, for example, a required specification. Reliability measures the level of success of an object's achievement in a required operating state because it is necessary to quantify reliability. (Oh & Kim, 2017). Responsiveness is the response or alertness of employees in helping customers and providing fast and responsive service, which includes: employee alertness in serving customers, employee speed in handling transactions, and handling customer or patient complaints. Responsiveness is the ability or readiness of employees to provide services provided. Responsiveness is the desire of staff to help customers and provide responsive service. Responsiveness is the willingness to help and provide fast and appropriate service to customers by conveying information clearly (Ali & Raza, 2017).

The guarantee includes the employee's ability to have proper product knowledge, the quality of hospitality, attention, and courtesy in providing services, skills in providing information, the ability to provide security in utilizing the services offered, and the ability to instill consumer confidence in the company. The dimension of certainty or guarantee combines the following dimensions: (1) Competence, namely the

skills and knowledge possessed by employees to perform services. (2) Courtesy, which includes friendliness, attention, and attitude of employees. (3) Credibility includes matters relating to trust in the company, such as reputation, achievements, and so on (Ramanathan, Subramanian, & Parrott, 2017). Empathy is the individual attention given by the campus to consumers/students, such as the ease of contacting the company/campus, the ability of employees to communicate with consumers/students, and the company's/campus' efforts to understand the wants and needs of their students. This empathy dimension is an amalgamation of the dimensions: Access, which includes the ease of using the services offered by the company/campus. Communication (Communication) is the ability to convey information to consumers/students or obtain input from consumers/students. Understanding the consumer (Understanding the Customer) includes the company's efforts to identify and understand the needs and desires of consumers. Finally, physical evidence includes the appearance of physical facilities such as buildings and indoor layouts, availability of parking spaces, cleanliness, tidiness, the comfort of the room, completeness of communication equipment, and employee appearance (Galeeva, 2016).

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Research Method

This study uses a quantitative approach. The population in this study were all students in semesters 3,5, and 7 at the Department of Accounting, Faculty of Economics. The number of active students to date is 580 students. While the sample used is probability sampling with a simple random sampling technique where each member of the population has the opportunity to become a member of the sample (Sugiono, 2006). Determination of the minimum number of samples is needed to represent the results with a population of 10%. The number of samples is 58 people. Data collection techniques are based on the research objectives that have been submitted. So the technique used in data collection is through survey methods with questionnaire techniques, namely data collection techniques by asking questions or written statements distributed to respondents with available alternative answers. The variables used are independent variables, namely service quality (reliability, responsiveness, assurance, empathy, and physical evidence), and the dependent variable is customer satisfaction. Some of these variables are operationalized as follows in table 1:

Table 1
Variable operationalization

Variable	Concept Variable	Dimensional	Indicator	Measurement
Quality Service (X)	**Service quality:** A measure of how well the level of service provided can match customer expectations. (Lewis & Boom: 1983).	Reliability (X1)	• Long waiting time • Service speed • Complaint handling	Interval
		Responsive-ness (X2)	• Friendly service and always ready to help • Communicating effectively with customers/students	Interval
		assurance (X3)	• Knowledge and skills of employees in handling transactions • Responsible for the safety and peace of students • Student data security system • Management credibility in student data management	Interval
		Empathy (X4)	• Give individual attention to customers/students • Politeness and friendliness of employees • The existence of customer service	Interval
		Tangibles (X5) Parasuraman,et al(1985)	• Availability of waiting facilities • Availability of parking space • Location affordability	Interval
Consumer Satisfaction (Student) (Y)	The feeling of someone who is satisfied or vice versa after comparing the reality and expectations received from a	Students' expectations and desires for the dimensions contained in service quality	They are satisfied with services and products if they can meet needs, wants and expectations.	Interval

| product | or |
| service | |

Data analysis techniques consist of data quality tests, classical assumption tests, and hypothesis testing. Data quality test consists of reliability test and validity test. To test the validity of the research instrument, in this case, a questionnaire, the product-moment correlation coefficient of Pearson> 0.5 is valid. A reliability test to look for reliability will be used. Cronbach alpha criteria> 0.6 is reliable (Suharsimi Arikunto, 2006). Classical assumption test consists of normality test, multicollinearity test, and heteroscedasticity test. A normality test is used to test whether the data is normally distributed or not. If the analysis uses the parametric method, the normality requirements must be met: the data is normally distributed. Normality testing uses a probability plot that compares the cumulative distribution of normal. The normal distribution will form a straight diagonal line, and plotting the residual data will be compared with the diagonal line. If the residual data is normal, the line that describes the actual data will follow the diagonal line. This multicollinearity test determines whether there is a linear relationship between the independent variables. To determine whether or not multicollinearity occurs, it can be seen by comparing the VIF (Variance Inflation factor) values. If the calculated VIF value is greater than 10 (> 10), then the variable has a multicollinearity problem with other independent variables and vice versa. If the VIF value is < 10, it can be said that multicollinearity does not occur.). The heteroscedasticity test aims to test whether there is an inequality of variance in the regression model from the residuals of one observation to another observation. If the residual variance from one observation to another remains, it is called Homoscedasticity, and if it is different, it is called Heteroscedasticity. A good regression model is Homoscedasticity, or there is no Heteroscedasticity. Hypothesis testing using multiple regression analysis, if the researcher intends to predict how the dependent variable's condition (up and down), if two or more independent variables as predictors increase and decrease in value.

Results and Discussion

The results of the field study research to obtain data using a questionnaire to measure the two main variables in this study, namely service quality, and student satisfaction. The research data were collected by giving 85 questionnaires to students in semesters 3, 5, and 7 of the Accounting Department, Faculty of Economics, University of Semarang. The summary of sending and returning questionnaires in this study is shown in table 2 below:

Table 2
Details of Receipt and Return of Questionnaires

Information	Amount
Delivery	85
The questionnaire that did not return and did not arrive	15
Returning Questionnaire	70
Rate of return (response rate) (70) /85 * 100%	82.3 %
The questionnaire that cannot be processed	12
Processable questionnaire	**58**
Questionnaire rate that cannot be processed (response rate) (12/70*100%)	17.2 %
	82.8 %

From the data above, it can be seen that of the 85 questionnaires sent, 70 were returned or 82.3% of the total questionnaires, while 15 were not returned or 17.7% of the total questionnaires. Of the total 70 returned questionnaires that could not be processed, there were 12 questionnaires because the data was incomplete or 17.2%, while the remaining 58 questionnaires could be processed for this study or 82.8%. The number of questionnaires that were returned and which could be processed was 58 less than the minimum number of samples determined from the total population of 580 enrolled in academic staff. Still, when viewed from the number of students who filled out only semesters three, five, and seven, the percentage showed the response rate. Sufficient rate for the size of Indonesia, which is on average 10-20% (Arikunto, 2010). The profiles of 58 respondents who participated in this study are shown in table 3 below:

Table 3
Profile Respondents (N=58)

Information	Amount	Percentage
Gender		
Man	22	37,9 %
Woman	36	63,1 %
Semester		
III	16	27,5 %
V	35	60,3 %
VII	7	13,2 %

Table 3 shows that most of the students who participated as respondents were 36 (63.1%) women while 22 (37.9 %). 7th semester as many as seven people (13.2%)

Descriptive Statistics

To provide an overview of the research variables (Service Quality, Student Satisfaction) descriptive statistics are used, which show the theoretical and actual range numbers, averages, and standard deviations, which can be seen in Table 4 below:

Table 4.
Descriptive statistics

Variable	Theoretical range	The range is real	Average	Standard Deviation
Service quality	20 -100	29 - 95	60.62	10.972
Student Satisfaction	12 - 60	21 - 44	34.22	5.903

Based on table 4, the measurement of the service quality variable, the range of respondents' answers is close to the middle value of the theoretical range, with an average value of 60.62 and a standard deviation of 10.972. This means that the respondents' answers are somewhat spread out into five categories but tend to have a relatively moderate level of service quality, which is indicated by an average value close to the maximum value of the actual range. The respondent's answer range is close to the theoretical range in the satisfaction variable, with an average value of 34.22 and a standard deviation of 5.493. The meaning is that the respondents are spread out in five categories but tend to have sufficient satisfaction, which is indicated by an average value close to the maximum value of the true range. This means that none of the students who became respondents in this study had a level of satisfaction at an extreme level (low or high).

Reliability and Validity Test Results

The reliability test results showed that the Cronbach alpha value of the Service Quality variable instrument was 0.883 > 0.6 and the student satisfaction variable instrument was 0.828 > 0.6. The validity test shows each instrument's Pearson correlation value, as shown in Table 5 below.

Table 5.
Validity Test Results

Variable	Item	Korelasi Pearson	Status
Dimension Of Service Quality (X)	X1	0.389	Valid
	X1	0.671	Valid
	X1	0.541	Valid
Reliability (X1)	X2	0.395	Valid
	X2	0.529	Valid

Responsive (X2)	X2	0.261	Valid
	X2	0.669	Valid
Assurance (X3)	X3	0.455	Valid
	X3	0.525	Valid
Empathy (X4)	X3	0,588	Valid
	X3	0,626	Valid
	X4	0.606	Valid
	X4	0.659	Valid
	X4	0.728	Valid
	X5	0.567	Valid
Tangibles (X5)	X5	0.593	Valid
	X5	0.601	Valid
	X5	0.620	Valid
	X5	0.565	Valid
	X5	0.535	Valid
Customer Satisfaction (Y)	Y1	0.568	Valid
	Y2	0.595	Valid
	Y3	0.585	Valid
	Y4	0.368	Valid
	Y5	0.662	Valid
	Y6	0.528	Valid
	Y7	0.582	Valid
	Y8	0.711	Valid
	Y9	0.511	Valid
	Y10	0.694	Valid
	Y11	0.660	Valid
	Y12	0.575	Valid

From the table, it can be seen that the correlation between the scores of each question item (X1 Reliability to X5 Physical Evidence) to the total score of the questions (Quality of Service) shows significant results (at the 0.05 level). So it can be concluded that each question item is valid. Likewise, (Y1 – Y12) is valid as an indicator of student satisfaction because each question item has a significant correlation value (at level 0.05). Furthermore, the data collected with valid instruments in this study will be analyzed further.

Classic Assumption Test Results

The classical assumption test results are carried out to obtain reliable regression results and have unbiased results or are called the Best Linear Unbiased Estimator (BLUE). The results of the normality test can be seen in Figure 2, showing that the data spread around the diagonal line and follows the direction of the diagonal line or the histogram graph shows a normal distribution pattern, then the regression model meets the assumption of normality. The results of

the multicollinearity test obtained that the VIF (Variance Inflation Factor) value for the X1 variable (Reliability) was 1.496, the X2 variable (Responsiveness) was 1.548, the X3 variable (Assurance) was 2.272, the X4 variable (Empathy) was 2.210, and the X5 variable (Physical) of 1.741. VIF values show VIF < 10, so it can be said that there is no multicollinearity, shown in table 6:
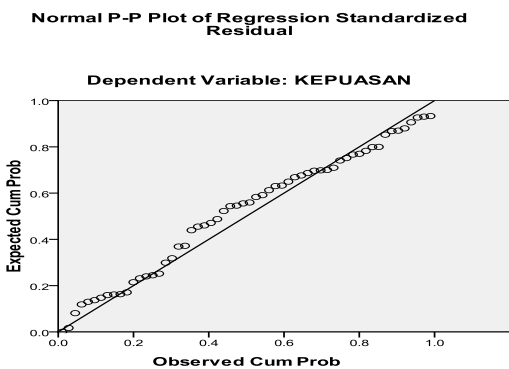
Figure 2

Normality Test Results

Table 6.

Multicollinearity Test Results

Variabel	VIF
Reliability (X1)	1.496
Response (X2)	1.548
Guarantee(X3)	2.272
Empathy (X4)	2.210
Physical (X5)	1.741

The results of the heteroscedasticity test based on the scatterplot graph show that the points spread randomly and are spread both above and below the number 0 on the Y-axis. It can be concluded that there is no heteroscedasticity in the regression model, so the regression model is feasible to use. The test results can be seen in Fig. Figure 3 below:

Figure 3

Heteroscedasticity Test Results
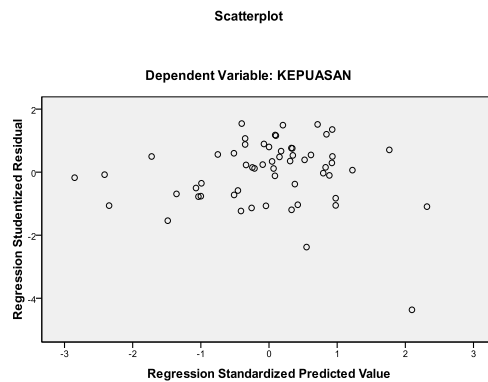
Hypothesis Test Results

Multiple regression analysis shows the following results. The first hypothesis states that reliability affects consumer satisfaction with a coefficient value of 0.475 and a significance of 0.000, then HA1 is accepted, and H01 is rejected, meaning that reliability positively affects student satisfaction. The second hypothesis states that responsiveness affects consumer satisfaction with a coefficient value of 0.284 and a significance of 0.03, then HA2 is accepted, and H02 is rejected, meaning that responsiveness positively affects student satisfaction. The third hypothesis states that guarantees have an effect on student satisfaction with a coefficient of 0.545 and a significance of 0.000 means that HA3 is accepted and H03 is rejected, meaning that guarantees have a positive effect on student satisfaction. The fourth hypothesis states that empathy affects student satisfaction with a coefficient value of 0.413 and a significance of 0.001, then HA4 is accepted, and H04 is rejected, meaning that empathy has a positive effect on student satisfaction.

Finally, the fifth hypothesis states that physical evidence affects student satisfaction with a coefficient value of 0.448 and a significance of 0.000, which means that HA5 is accepted and H05 is rejected, meaning that reliability positively affects student satisfaction.

Table 7

Hypothesis Test Results

Hypothesis	Coefficient	Sign	Results
Reliability has an effect on student satisfaction.	0,478	0,000	accepted
Responsiveness has an effect on student satisfaction.	0,284	0,031	accepted
Guarantee affects student satisfaction.	0.545	0,031	accepted
Empathy affects student satisfaction.	0,413	0,001	accepted
Physical Evidence Affects Student Satisfaction	0,448	0,000	accepted

Reliability which is reflected in the length of waiting time, speed of service, and complaint handling, has an effect of 0.478. Responsiveness related to friendly service and always ready to help, effective communication with customers/students, speed of service, and complaint handling affect 0.284. Guarantees in the form of knowledge and skills of employees in handling transactions, institutions responsible for the security and student peace, student data security system that is maintained, and management credibility in managing student data has an effect on student satisfaction of 0.545, much higher than other dimensions. Empathy in the form of giving individual attention to customers/students, politeness, and friendliness of employees, the existence of customer service affects student satisfaction of 0.413. While the physical evidence of the availability of waiting facilities, the availability of parking spaces, and the affordability of the location affect student satisfaction of 0.448.

Conclusion

The analysis and discussion results show that the dimensions of service quality (reliability, responsiveness, assurance of empathy, and physical evidence) have a positive effect on student satisfaction. Therefore, it is recommended that service quality, such as reliability, responsiveness, empathy, and physical evidence, be further improved, considering that the effect is negligible except for guarantees.

Recommendation

Therefore, it is recommended that service quality, such as reliability, responsiveness, empathy, and physical evidence, be further improved, considering that the effect is negligible except for guarantees.

References

Ali, M., & Raza, S. A. (2017). Service quality perception and customer satisfaction in Islamic banks of

Pakistan: the modified SERVQUAL model. *Total Quality Management & Business Excellence*, *28*(5–6), 559–577.

Arikunto, S. (2010). Metode peneltian. *Jakarta: Rineka Cipta.*

Darwyansyah, D. (2017). Pengukuran dan penilaian kualitas pelayanan perguruan tinggi. *Saintifika Islamica: Jurnal Kajian Keislaman*, *1*(02), 19–37.

Efferi, A. (2014). Dinamika Persaingan Antar Lembaga Pendidikan. *Quality*, *2*(1), 96–116.

Galeeva, R. B. (2016). SERVQUAL application and adaptation for educational service quality assessments in Russian higher education. *Quality Assurance in Education.*

Kardoyo, K., & Nurkhin, A. (2016). Analisis kepuasan pelayanan perguruan tinggi (kasus pada Prodi Magister Pendidikan Ekonomi Unnes). *Jurnal Cakrawala Pendidikan*, *35*(2).

Kotler, P. (2017). Philip Kotler: some of my adventures in marketing. *Journal of Historical Research in Marketing.*

Mulyawan, A., & Rinawati, R. (2017). Pengaruh Kualitas Layanan Akademik Terhadap Kepuasan Mahasiswa Serta Implikasinya Pada Loyalitas Mahasiswa (Studi Pada Sekolah Tinggi Manajemen Informatika Dan Komputer Di Kota Bandung). *Jurnal Ekonomi, Bisnis & Entrepreneurship*, *10*(2), 119–131.

Nasukah, B. (2014). *Analisis kepuasan mahasiswa atas kualitas pelayanan perguruan tinggi agama Islam negeri: Studi kasus di Universitas Islam Negeri Maulana Malik Ibrahim Malang.* Universitas Islam Negeri Maulana Malik Ibrahim.

Nurdin, N. (2009). Quality Assurance in Higher Education. *Jurnal Administrasi Pendidikan*, *10*(2).

Oh, H., & Kim, K. (2017). Customer satisfaction, service quality, and customer value: years 2000-2015. *International Journal of Contemporary Hospitality Management.*

Ramanathan, U., Subramanian, N., & Parrott, G. (2017). Role of social media in retail network operations and marketing to enhance customer satisfaction. *International Journal of Operations & Production Management.*

Saktiani, G. A. (2015). Pengaruh kualitas layanan dan citra perusahaan terhadap kepuasan pelanggan dan word of mouth. *JISIP: Jurnal Ilmu Sosial Dan Ilmu Politik*, *4*(2).