JUKIM ADMI Jurnal Ilmiah Multidisiplin

OPEN ACCESS

**JURNAL JUKIM** Vol 4 No. 3 Mei 2025 | P-ISSN: 2829-0488 E-ISSN: 2829-0518, page. 14-24

# The Influence Of Vendor Performance Evaluation, Product Quality, And Price On User Satisfaction Of Laboratories Within Universitas Pertamina

**Erick Ivan Gian[1*], Heni Iswati[2]**

[1,2] Master of Management Program, Faculty of Economics and Business, Budi Luhur University

**Article History**
Received : April 2025
Revised : April 2025
Accepted : Mei 2025
Published : Mei 2025

**Corresponding author*:**
Erick Ivan Gian

**Contact:**
erickivangian@gmail.com

**Cite This Article:**
Gian, E. I., & Iswati, H. (2025). The Influence Of Vendor Performance Evaluation, Product Quality, And Price On User Satisfaction Of Laboratories Within Universitas Pertamina. Jurnal Ilmiah Multidisiplin, 4(03), 14–24.

**DOI:**
https://doi.org/10.56127/jukim.v4i03.1982

**Abstract:** This study aims to examine the influence of vendor performance evaluation, product quality, and price on user satisfaction of laboratory facilities at Universitas Pertamina. A quantitative research approach was employed, and data were collected through a structured questionnaire distributed to 65 respondents, utilizing a total sampling method. The research variables were measured using a five-point Likert scale and analyzed through multiple linear regression with the assistance of SPSS 22.0. The findings reveal that vendor performance, product quality, and price each have a positive and significant partial effect on user satisfaction. Furthermore, all three variables simultaneously exert a significant influence on user satisfaction. The results emphasize the critical role of maintaining high vendor standards, ensuring the quality of products and services, and implementing competitive pricing strategies to enhance user satisfaction in laboratory environments. These insights offer valuable implications for laboratory management practices in higher education institutions.

**Keywords**: Vendor Performance, Product Quality, Price, User Satisfaction, Laboratory Services

## INTRODUCTION

Educational laboratories, often referred to simply as labs, serve as critical support facilities for academic activities within educational institutions. In certain contexts, laboratories can hold an equally important role as educators, students, curriculum, objectives, and evaluation processes. Optimizing the management and development of laboratories enables them to not only provide academic facilities but also serve as dynamic learning environments and resource centers for users.

At the higher education level, laboratories play a strategic role in the advancement of science and the institutional development of academic programs. According to Article 1 of the Regulation of the Minister for Administrative Reform and Bureaucratic Reform (Permen PAN-RB) No. 3 of 2010 regarding the Functional Position of Educational Laboratory Staff and its Credit Points, educational laboratories are defined as academic support units, either enclosed or open spaces, permanent or mobile, managed for testing, calibration, or limited-scale production using specific scientific methods for the purposes of education, research, and community service. This definition indicates that laboratories are not confined to closed physical spaces but also encompass dynamic open areas. Their functions include supporting education, research, and community engagement—hallmarks that distinguish universities from other educational institutions.

However, many departments or study programs still perceive laboratories merely as facilities to support practical classes. Some universities, particularly private ones, even lack laboratories due to the minimal number of practical courses or financial constraints. Furthermore, there is often a shortage of adequate equipment to meet the needs of a growing student body. In addition to facility limitations, major challenges include laboratory management and service delivery. In practice, laboratory needs assessments

are often based solely on assumptions made by department administrators, without involving thorough needs analysis or user satisfaction evaluation. In fact, as academic service units, laboratories must be controlled and improved based on user feedback to enhance management and service quality.

Measuring user satisfaction is one method of evaluating the quality of laboratory management and services. As stated by Syahza (2011), laboratories form an essential part of high-quality universities. Laboratory management must align with academic planning since laboratories significantly contribute to producing superior scientific work that sets universities apart. One such example is Universitas Pertamina (UPER), where laboratories have a strategic role in advancing knowledge and strengthening academic programs. Universitas Pertamina, founded by PT Pertamina (Persero), represents the corporation's contribution to society through higher education. The university's management is overseen by the Pertamina Foundation. Among the core academic activities at Universitas Pertamina are laboratory-based practicums designed to complement theoretical coursework.

According to Yaman (2016), a laboratory is a place for scientific research, experimentation, measurement, or scientific training. Laboratories are typically designed to facilitate such activities in a controlled manner. They are defined as spaces equipped for experimentation, investigation, and studies related to fields such as physics, chemistry, biology, and other scientific disciplines. Based on the above explanations, it can be concluded that laboratories are places or rooms equipped with tools necessary for conducting experiments or research activities.

Universitas Pertamina's laboratories are known for their strong management, excellent facilities, advanced equipment and technology, and high-quality services tailored to user needs. The laboratories serve multiple departments and are committed to quality management systems that meet ISO 9001:2008 standards, as well as regulations set by the Ministry of Research, Technology, and Higher Education. Routine internal and external quality audits, conducted by independent bodies, ensure objective performance evaluations. These efforts are designed to maintain the laboratories' quality standards over time.

User satisfaction levels are largely influenced by prior expectations; satisfaction is high when outcomes meet or exceed expectations. Initial interviews at Universitas Pertamina suggested that dissatisfaction among laboratory users could be attributed to factors such as vendor performance evaluation, product quality, and pricing. Issues with vendor service quality, product durability, and pricing were among the factors identified as contributing to the dissatisfaction.

Products supplied by vendors to Universitas Pertamina's laboratories include a variety of technical equipment, materials, and supporting services for academic, research, and practicum activities. These products typically encompass: 1) Laboratory Equipment (e.g., microscopes, spectrophotometers, viscometers, centrifuges, pH meters, and various types of glassware such as beakers, Erlenmeyer flasks, and test tubes); 2) Chemical Reagents (e.g., analytical reagents, organic and inorganic solvents, dyes, indicators, and analytical standards); 3) Technology and Electronic Devices (e.g., computers and specialized software for data analysis, hardware for simulation and processing, sensors, and automated measuring devices); 4) Laboratory Safety Facilities (e.g., gloves, masks, goggles, fire extinguishers, ventilation systems, and chemical safety equipment); 5) Calibration and Maintenance Services (e.g., instrument calibration, maintenance, and repair, as well as user manuals); and 6) Supporting Materials for Practicums (e.g., experimental kits, learning modules, and instruments for technical and energy-related studies). These products are essential for supporting the laboratory activities related to technology, energy, exploration, and natural sciences at Universitas Pertamina.

Customers generally expect the products and services they receive to meet or exceed their needs and desires. Therefore, companies must prioritize service quality. According to Tjiptono (2013), service quality is a dynamic condition related to products, services, human resources, processes, and environments that meet or exceed customer expectations. Vendors, as service providers, must protect and enhance their reputation in the eyes of clients to ensure continued partnerships. Issues such as delivery delays, volume discrepancies, or poor service cannot be overlooked, as they may lead to the loss of future business opportunities and damage to the vendor's reputation. Research by Loekito and Hukama (2017) found that tangible service quality positively affects customer satisfaction. Conversely, Simamora and Kaharuddin (2022) observed that vendor performance evaluation does not significantly affect customer satisfaction.

Regarding the quality of laboratory products used at Universitas Pertamina, Lamb (2012) defines a product as anything, whether beneficial or not, obtained through exchange. Abdurrahman (2011) similarly describes a product as anything offered to the market to gain attention, acquisition, use, or consumption that can satisfy a need or desire. Kotler (Ancellawati, 2013) classifies products into consumer goods and industrial goods. Kotler and Armstrong (2012) argue that product development decisions involve product attributes, branding, packaging, and labeling. A phenomenon observed at Universitas Pertamina includes product issues such as spontaneous combustion (self-igniting products) due to delays in usage, leading to decreased product durability. Additionally, calorific values not meeting contractual standards and higher consumption rates due to limited product diversity were reported. According to Soegihartono (2020), business sustainability requires improvements in product quality by delivering products that meet or exceed consumer expectations. Andalusi (2017) found that product quality has a positive but insignificant impact on customer satisfaction for laboratory instrumentation products at PT Laborindo Sarana. On the other hand, Listyowati, Fadilah, Haroen, and Hursepuny (2017) reported that product quality significantly influences customer satisfaction at Prodia Clinical Laboratories.

Another factor influencing satisfaction is price—the cost incurred by the university to access laboratory services at Universitas Pertamina. To investigate this, the researcher sampled products provided by CV Karya Graha Agung and compared prices with those of similar laboratory equipment suppliers in the chemical sector, as illustrated in the following table.

Table 1. Product Prices

| | | | |
|---|---|---|---|
| 1 | PT Fatiha Buana Semesta | 110,000,000 | Spectrometer |
| 2 | PT KGC Saintifik | 118,000,000 | Spectrometer |
| 3 | CV Karya Graha Agung | 120,000,000 | Spectrometer |

Based on Table 1., it can be observed that the price offered by CV. Karya Graha Agung significantly differs from that of its competitors, which may affect the purchasing decisions toward CV. Karya Graha Agung's products. Furthermore, the researcher conducted interviews with users who had previously used products supplied by CV. Karya Graha Agung. According to Mrs. Pristini, laboratory equipment provided by CV. Karya Graha Agung was slightly more expensive compared to that offered by competitors.

Another phenomenon was identified at PT Tridinamika Jaya Instrumen, where the Service Level Agreement (SLA) was not properly implemented. The company failed to deliver goods due to additional charges, causing losses for Universitas Pertamina and resulting in user dissatisfaction.

According to Alma (2016), price is defined as the value of a product expressed in monetary terms. Similarly, as cited by Deliyanti Oentoro in Sudaryono (2015), price refers to an exchange value that can be equated with money or other goods in return for the benefits derived from a product or service by an individual or group at a specific time. Research by Andalusi (2017) found that price has a positive and significant influence on customer satisfaction with laboratory instrumentation support services at PT Laborindo Sarana. Muhammad and Igo (2022) similarly concluded that price positively influences student satisfaction at STIM Budi Bakti.

Based on these findings regarding factors that influence user satisfaction, the above phenomena serve as the foundation for this study, titled: "The Influence of Vendor Performance Evaluation, Product Quality, and Price on User Satisfaction of Laboratories within Universitas Pertamina."

**RESEARCH METHOD**

This study adopts a quantitative approach to examine the influence of vendor performance evaluation, product quality, and price on laboratory user satisfaction at Universitas Pertamina. Quantitative research was chosen because it emphasizes objective measurement and statistical analysis of data to test hypotheses empirically (Sugiyono, 2018). The research was conducted at Universitas Pertamina, Jakarta, between January and March 2025. The target population comprised all users of laboratory facilities, totaling 65 individuals. Considering the limited number of respondents, the study utilized a census technique, in which all members of the population were included as research participants (Sekaran & Bougie, 2019).

Data collection was carried out using a structured questionnaire designed to capture user perceptions of vendor performance, product quality, pricing, and satisfaction levels. The questionnaire employed a five-point Likert scale, ranging from "strongly disagree" to "strongly agree," to ensure that respondents could express their agreement or disagreement clearly and consistently (Hair et al., 2014).

The operationalization of research variables was based on established theories and prior empirical studies. Vendor performance evaluation was measured through dimensions such as quality, cost, delivery, flexibility, and responsiveness, referring to the model proposed by Yp Fun and Js Hung (1997). Product quality was assessed based on six dimensions: performance, durability, features, reliability, aesthetics, and perceived quality, in accordance with the framework developed by Amrullah et al. (2017) and Lupiyoadi and Hamdani (2017). Price was measured using four indicators, namely price affordability, price competitiveness, price-quality suitability, and price-benefit conformity, as adapted from Kotler and Armstrong (2012) in the translation by Sabran (2012). Meanwhile, user satisfaction was conceptualized as the degree to which perceived performance met or exceeded expectations, following the theoretical perspectives of Tjiptono (2016) and Kotler and Keller (2016).

To analyze the data, several statistical techniques were employed. The validity of the measurement instruments was tested to ensure that they accurately captured the constructs being investigated (Ghozali, 2018). Reliability tests were conducted using Cronbach's Alpha to confirm the consistency of responses across items (Sekaran & Bougie, 2019). In addition, classical assumption tests, including tests for normality, multicollinearity, and heteroscedasticity, were conducted to ensure that the regression model fulfilled the necessary assumptions for linear regression analysis (Gujarati & Porter, 2009).

The primary analytical technique used was multiple linear regression analysis, which allowed for testing the influence of each independent variable, both individually and collectively, on user satisfaction. Hypotheses were evaluated using t-tests for assessing partial effects and F-tests for examining simultaneous effects, in accordance with the procedures recommended by Hair et al. (2014). The coefficient of determination ($R^2$) was calculated to determine the extent to which the model could explain variations in user satisfaction (Ghozali, 2018). All data processing and analysis were conducted using SPSS statistical software to ensure accuracy and reliability of the results.

## RESULT AND DISCUSSION

Respondents' Demographic Profile

The respondents in this study consisted of laboratory users at Universitas Pertamina, totaling 65 individuals. Based on gender, the majority of respondents were female, amounting to 42 individuals or 64.6%, while male respondents accounted for 23 individuals or 35.4%. This distribution indicates that female users dominated the laboratory user group during the study period.

Regarding age, the largest proportion of respondents fell within the 36–45 years age group, comprising 28 individuals or 43.1% of the total respondents. Meanwhile, 18 respondents (27.7%) were aged between 26 and 35 years, 11 respondents (16.9%) were over 45 years old, and 8 respondents (12.3%) were under 25 years old. This demographic profile shows that laboratory users are predominantly within the mature working-age group, which aligns with the typical academic and professional environment at Universitas Pertamina.

In terms of educational attainment, the majority of respondents held a master’s degree (Strata Two/S2), representing 83.1% or 54 individuals. This was followed by respondents holding a doctoral degree (Strata Three/S3) with 8 individuals (12.3%), and bachelor’s degree (Strata One/S1) holders with 2 individuals (3.1%). Only 1 respondent, or 1.5%, belonged to other educational categories. This data reflects that most laboratory users have pursued higher education, thereby supporting the academic rigor and research orientation of the institution.

When analyzed based on their faculty affiliation, respondents were most frequently associated with the Faculty of Industrial Technology, accounting for 20 individuals or 30.8% of the sample. This was followed by the Faculty of Science and Computer Science and the Faculty of Exploration and Production Technology, each contributing 15 respondents (23.1%). The Faculty of Infrastructure Planning contributed 11 respondents (16.9%), while the Faculty of Economics and Business contributed 4 respondents (6.2%). This composition indicates that the majority of laboratory users come from faculties

with strong engineering and scientific backgrounds, which is consistent with the technical nature of the laboratory activities conducted at Universitas Pertamina.

Overall, the respondent profile highlights that the laboratory users at Universitas Pertamina are predominantly female, aged between 36–45 years, highly educated with at least a master's degree, and primarily affiliated with science and engineering faculties.

Variable Description

The descriptive analysis of vendor performance measurement shows that respondents generally expressed agreement across all indicators of vendor performance. The average score for the vendor performance variable was 3.78, indicating a positive perception from users. The highest average score was found in the indicator concerning vendor flexibility in adjusting delivery times according to purchase orders, which scored 3.93. Conversely, the lowest average was recorded on the indicator related to the provision of professional, safe, and reliable service, which scored 3.61. These results suggest that overall, vendors were perceived to perform adequately, although there is room for improvement, particularly in the area of service professionalism.

For the product quality measurement, the findings indicate that respondents also tended to agree positively with the quality indicators presented. The average score for product quality was 3.21. Among the various statements, the indicator stating that products function according to their intended use as described by the vendor received the highest score of 3.96. Meanwhile, the indicators concerning specification conformity and product expectations based on vendor offerings scored the lowest, each with an average of 3.43. This implies that while users recognize the functional quality of the products, there are concerns about consistency with promised specifications and expectations.

In relation to price measurement, respondents largely agreed that the price they paid was reasonable relative to the quality and benefits received. The average score for the price variable was 3.77. The indicator stating that the product price was appropriate for its quality recorded the highest score at 4.00, demonstrating strong agreement. However, lower average scores were found in the indicators comparing prices with competitors and considering price as the primary factor in purchase decisions, each with a score of 3.61. These findings suggest that while the price is generally viewed as acceptable, price competitiveness remains an area of sensitivity for users.

Regarding user satisfaction measurement, the descriptive analysis revealed that respondents expressed high levels of satisfaction across all indicators. The average satisfaction score was 3.82, placing it in the "agree" category. The highest average was associated with the indicator of trust in product quality, which scored 3.89. On the other hand, the lowest average was recorded for the indicator related to the product fulfilling expectations based on its description, with a score of 3.75. Overall, these results illustrate that users were generally satisfied with the products and services received, although expectations based on initial descriptions could be managed better.

Validity Test

In this study, validity and reliability tests were conducted on 65 respondents using SPSS 22.0. Item validity was determined by comparing the corrected item-total correlation value with the Pearson Product Moment critical value, where the r-table value was 0.3739 (df = 63, $\alpha = 0.05$). An item was considered valid if the calculated r-value exceeded 0.3739, and invalid if it was below 0.3739. Based on the test results, all questionnaire items met the validity criteria and were therefore deemed suitable for further analysis.

Table 2. Vendor Performance Variables

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| X1_1 | 15.00 | 6.741 | .623 | .825 |
| X1_2 | 15.21 | 6.026 | .832 | .760 |
| X1_3 | 14.96 | 8.110 | .471 | .857 |
| X1_4 | 15.29 | 6.138 | .839 | .759 |
| X1_5 | 15.11 | 8.025 | .527 | .845 |

Table 3. Product Quality Variables
Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| X2_1 | 22.32 | 14.152 | .584 | .818 |
| X2_2 | 22.11 | 15.210 | .391 | .839 |
| X2_3 | 22.29 | 12.063 | .525 | .831 |
| X2_4 | 22.07 | 13.254 | .523 | .823 |
| X2_5 | 22.32 | 14.152 | .584 | .818 |
| X2_6 | 22.61 | 10.470 | .838 | .765 |
| X2_7 | 22.50 | 11.296 | .762 | .782 |

Table 4. Price Variables
Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| X3_1 | 14.86 | 7.534 | .543 | .891 |
| X3_2 | 15.25 | 5.824 | .855 | .818 |
| X3_3 | 15.00 | 7.111 | .689 | .861 |
| X3_4 | 15.25 | 5.824 | .855 | .818 |
| X3_5 | 15.07 | 7.365 | .647 | .870 |

Table 5. User Satisfaction Variables
Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| Y1 | 19.11 | 7.729 | .432 | .758 |
| Y2 | 19.18 | 7.560 | .542 | .729 |
| Y3 | 19.07 | 7.476 | .620 | .712 |
| Y4 | 19.11 | 7.877 | .484 | .743 |
| Y5 | 19.04 | 6.999 | .661 | .697 |
| Y6 | 19.14 | 7.534 | .395 | .773 |

Based on the output results, it was found that the values in the Corrected Item-Total Correlation column showed that all items had a calculated r-value greater than the r-table value. This indicates that all statements related to User Satisfaction in the validity test were declared valid, as the significance values exceeded 0.3739.

Reliability Test

Reliability testing, according to Priyatno (2017), is necessary to measure the reliability level of a questionnaire and is conducted through internal reliability testing using the Alpha method. The decision rule states that the questionnaire is considered reliable if the Cronbach's Alpha value exceeds 0.6, whereas it is considered unreliable if the Cronbach's Alpha value is less than or equal to 0.6.

Table 6. Reliability Test

| Variable | Cronbach Alpha | Standar | Remarks |
|---|---|---|---|
| Vendor Performance | 0.846 | 0.6 | Reliable |
| Product Quality | 0.836 | 0.6 | Reliable |
| Price | 0.880 | 0.6 | Reliable |
| User Satisfaction | 0.770 | 0.6 | Reliable |

The results of the reliability test, as presented in Table 6, demonstrate that all research variables meet the required reliability standards. The Vendor Performance variable achieved a Cronbach's Alpha value of 0.846, exceeding the minimum standard of 0.6, thus indicating that the measurement items are reliable. Similarly, the Product Quality variable recorded a Cronbach's Alpha of 0.836, confirming its reliability. The Price variable showed the highest reliability among the variables, with a Cronbach's Alpha of 0.880,

reflecting a very strong internal consistency. Lastly, the User Satisfaction variable obtained a Cronbach's Alpha of 0.770, which also surpassed the required threshold, indicating that the items used to measure user satisfaction are consistent and reliable. Overall, these findings affirm that the instruments used in this study possess adequate internal consistency and are suitable for further analysis.

Classical Assumption Test

a. Normality Test

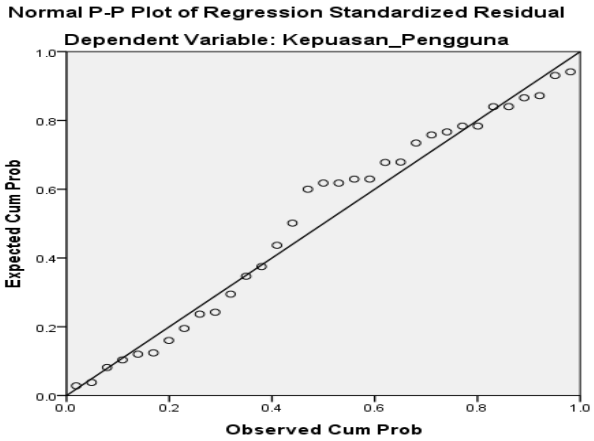


Figure 1. Normality Test

In Figure 1, the output of the SPSS Normal P-P Plot shows that the distribution of data points is spread around the diagonal line and that the points follow the direction of the diagonal line. Therefore, it can be concluded that the data for the User Satisfaction variable are normally distributed.

b. Multicollinearity Test

Table 7. Multicollinearity Test

Coefficients[a]

| Model | | Collinearity Statistics | |
|---|---|---|---|
| | | Tolerance | VIF |
| 1 | Vendor Performance | .653 | 3.532 |
| | Product Quality | .457 | 2.188 |
| | Price | .341 | 2.936 |

a. Dependent Variable: User Satisfaction

The results of the multicollinearity test, as presented in Table 7, indicate that all independent variables meet the required collinearity criteria. Vendor Performance has a tolerance value of 0.653 and a Variance Inflation Factor (VIF) value of 3.532. Product Quality shows a tolerance value of 0.457 and a VIF value of 2.188. Meanwhile, Price has a tolerance value of 0.341 and a VIF value of 2.936. Since all tolerance values are greater than 0.10 and all VIF values are less than 10, it can be concluded that there are no multicollinearity issues among the independent variables in this study. Thus, the data are considered suitable for further regression analysis.

c. Heteroscedasticity Test

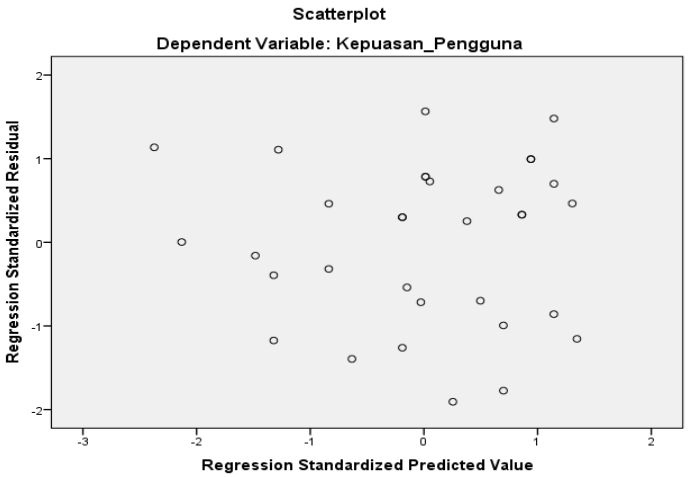


Figure 2. Heteroscedasticity Test

Based on Figure 2, the distribution of data points appears above and below zero, is not concentrated on a single side, and does not form any discernible pattern. Therefore, it can be concluded that the regression model is free from heteroscedasticity issues and the data are suitable for further analysis.

6. Multiple Linear Regression Test
Table 8. Multiple Linear Regression Test
Coefficients[a]

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.827 | 2.471 | | 1.144 | .262 |
| | Vendor Performance | .378 | .152 | .475 | 2.487 | .019 |
| | Product Quality | .829 | .167 | .746 | 4.962 | .000 |
| | Price | .377 | .141 | .467 | 2.682 | .012 |

a. Dependent Variable: User Satisfaction

Based on the results presented in Table 8, the multiple linear regression analysis produced a constant value of 2.827 with a significance level of 0.262. Since the significance value is greater than 0.05, the constant is not statistically significant, indicating that when all independent variables are equal to zero, the dependent variable, user satisfaction, does not significantly differ from zero. For the Vendor Performance variable, the regression coefficient (B) is 0.378 with a significance value of 0.019. Since the significance value is less than 0.05, it can be concluded that Vendor Performance has a positive and significant effect on User Satisfaction. This means that an improvement in vendor performance is associated with an increase in user satisfaction.

The Product Quality variable has a regression coefficient (B) of 0.829 and a significance value of 0.000. Given that the significance value is well below 0.05, it indicates that Product Quality has a strong positive and statistically significant effect on User Satisfaction. Thus, higher product quality significantly enhances user satisfaction. The Price variable shows a regression coefficient (B) of 0.377 with a significance value of 0.012. As the significance value is less than 0.05, Price also has a positive and significant influence on User Satisfaction. This suggests that reasonable and competitive pricing contributes significantly to the satisfaction levels of laboratory users at Universitas Pertamina.

Table 9. ANOVA

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 218.644 | 3 | 72.881 | 46.744 | 0.000 |
| Residual | 95.110 | 61 | 1.559 | | |
| Total | 313.754 | 64 | | | |

a. Dependent Variable: User Satisfaction
b. Predictors: (Constant), Price, Product Quality, Vendor Performance

Based on the ANOVA test results presented in the table, the F-value is 46.744 with a significance level of 0.000. Since the significance value is less than 0.05, it can be concluded that Vendor Performance, Product Quality, and Price simultaneously have a significant effect on User Satisfaction. Therefore, the regression model developed in this study is appropriate for further analysis.

Table 10. Model Summary[b]

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .837[a] | .700 | .669 | 1.652 |

a. Predictors: (Constant), Price, Product Quality, Vendor Performance
b. Dependent Variable: User Satisfaction

Based on the results shown in Table 10, the regression model produced an R value of 0.837, indicating a strong correlation between Vendor Performance, Product Quality, Price, and User Satisfaction. The coefficient of determination (R Square) is 0.700, meaning that 70.0% of the variation in User Satisfaction can be explained by the three independent variables included in the model. Meanwhile, the Adjusted R Square value is 0.669, which adjusts the R Square value for the number of predictors used, and still reflects a high explanatory power of the model. The standard error of the estimate is 1.652, suggesting that the model's prediction errors are relatively small. These results confirm that the model has good predictive ability and is appropriate for explaining the variations in User Satisfaction.

Discussion

a.) The Influence of Vendor Performance on User Satisfaction

The results of the first hypothesis test in this study indicate that the calculated t-value of 2.487 is greater than the t-table value of 2.056 (2.487 > 2.056). Additionally, the significance value (Sig.) of 0.019 is less than 0.05 (0.019 < 0.05). Based on these results, the alternative hypothesis (Ha) is accepted, indicating that Vendor Performance has a significant partial effect on User Satisfaction within Universitas Pertamina. In this context, good vendor performance plays an important role in enhancing user satisfaction among students, lecturers, and staff. Optimal vendor performance may include aspects such as service speed, the quality of goods and services provided, and responsiveness to user needs and complaints. Therefore, Universitas Pertamina management needs to maintain strong relationships with vendors and ensure that vendors deliver services that meet expected quality standards.

This finding is consistent with the study by Fauziah Nur Simamora, Kaharuddin, and Rosmita Ambarita (2020), which showed a positive relationship between vendor service and customer satisfaction at PT PLN (Persero) Pembangkitan Sumatera Bagian Utara, Pandan Generation Sector. However, Simamora and Kaharuddin (2022) found that vendor performance evaluation did not have a significant impact on customer satisfaction. Despite these differing findings, the results of the present study support the majority of previous research, confirming that Vendor Performance has a significant and positive effect on User Satisfaction.

b.) The Influence of Product Quality on User Satisfaction

The results of the second hypothesis test show that the calculated t-value of 4.962 is greater than the t-table value of 2.056 (4.962 > 2.056), and the significance value is 0.000, which is smaller than 0.05 (0.000 < 0.05). These results indicate that Product Quality has a highly significant partial influence on User Satisfaction at Universitas Pertamina. In this case, product quality may refer to various technological products or services, such as high-quality computers and software, which support both academic and administrative activities. Therefore, Universitas Pertamina must continue to enhance the quality of the products and services provided, including laboratory equipment, chemical materials,

technology and electronic devices, laboratory safety facilities, calibration and maintenance services, and other practical support materials that facilitate academic and research activities.
This finding aligns with the study by Listyowati, Fadilah, Haroen, and Hursepuny (2017), who reported a significant influence of product quality on customer satisfaction at Prodia Clinical Laboratory. However, Andalusi (2017) found that while Product Quality had a positive influence, it was not statistically significant in the context of laboratory instrumentation support at PT Laborindo Sarana. Thus, although some inconsistencies exist, the present study is generally consistent with prior findings that Product Quality has a significant and positive effect on User Satisfaction.

c.) The Influence of Price on User Satisfaction
The results of the third hypothesis test demonstrate that the calculated t-value of 2.682 is greater than the t-table value of 2.056 (2.682 > 2.056), and the significance value is 0.012, which is less than 0.05 (0.012 < 0.05). Therefore, the alternative hypothesis (Ha) is accepted, confirming that Price has a significant partial effect on User Satisfaction at Universitas Pertamina. Price in this study refers to the costs incurred by users, including students, lecturers, and staff. A reasonable and affordable price is critical for maintaining user satisfaction.
This finding is consistent with research conducted by Andalusi (2017), which showed that Price had a positive and significant effect on customer satisfaction in laboratory instrumentation support services at PT Laborindo Sarana. Similarly, Muhammad and Igo (2022) found that Price positively influenced Student Satisfaction at STIM Budi Bakti. Thus, the results of the present study are in line with previous research, confirming that Price has a significant and positive effect on User Satisfaction.

d.) The Simultaneous Influence of Vendor Performance, Product Quality, and Price on User Satisfaction
Simultaneously, the relationship between the independent variables—Vendor Performance, Product Quality, and Price—and User Satisfaction was tested. The results show that the calculated F-value is 46.744 with a significance value of 0.000. The F-table value obtained is 3.090. Since the calculated F-value is greater than the F-table value (46.744 > 3.090), and the significance value is less than 0.05, the null hypothesis (H0) is rejected and the alternative hypothesis (H1) is accepted. This indicates that Vendor Performance, Product Quality, and Price collectively have a significant simultaneous effect on User Satisfaction at Universitas Pertamina.

## CONCLUSION

Based on the findings and discussions regarding the influence of vendor performance evaluation, product quality, and price on user satisfaction within the laboratories at Universitas Pertamina, several conclusions can be drawn. First, Vendor Performance has a significant partial effect on User Satisfaction. A well-performing vendor plays a crucial role in improving satisfaction by ensuring service speed, product and service quality, and responsiveness to user needs. Second, Product Quality significantly influences User Satisfaction. High-quality products, including laboratory equipment, chemicals, and supporting technologies, directly contribute to the academic and research activities of users. Third, Price also exerts a significant effect on User Satisfaction. Reasonable and competitive pricing is essential to ensure user satisfaction, particularly in an educational environment.

Furthermore, the simultaneous testing results confirm that Vendor Performance, Product Quality, and Price collectively have a significant impact on User Satisfaction. This emphasizes the importance of maintaining vendor standards, ensuring product excellence, and providing fair pricing strategies to enhance user experiences in laboratory services.

Managerial implications suggest that Universitas Pertamina should implement stringent vendor performance evaluations, maintain high product quality standards, and manage pricing transparency and affordability. Despite the valuable findings, this study acknowledges limitations, including the restricted research setting at Universitas Pertamina, the limited number of independent variables, and the reliance on linear analysis models. Future research is encouraged to expand the model by incorporating additional variables, applying comparative and longitudinal designs, and using mixed-method approaches to enrich the understanding of user satisfaction dynamics over time.

## REFERENCES

[1] Abdurrahman. (2011). Produk dan pemasaran dalam bisnis modern. Jakarta: Penerbit Universitas Indonesia.
[2] Alma, B. (2016). Manajemen pemasaran dan pemasaran jasa. Bandung: Alfabeta.
[3] Amrullah, M., Sukmawati, S., & Alfiansyah, A. (2017). Indikator kualitas produk dalam memenuhi kepuasan konsumen. Jurnal Ekonomi dan Bisnis, 12(1), 45–56.
[4] Ancellawati, D. (2013). Pengaruh atribut produk terhadap keputusan pembelian konsumen. Jurnal Pemasaran, 9(2), 88–95.
[5] Andalusi, R. (2017). Pengaruh harga, kualitas produk, dan kualitas pelayanan terhadap kepuasan pelanggan penunjang instrumentasi laboratorium PT Laborindo Sarana. Jurnal Ekonomi dan Bisnis, 12(1), 60–74.
[6] Fauziah Nur Simamora, Kaharuddin, & Rosmita Ambarita. (2020). Hubungan pelayanan vendor terhadap kepuasan konsumen pada PT PLN (Persero) Pembangkitan Sumatera Bagian Utara Sektor Pandan. Jurnal Manajemen, 11(2), 101–112.
[7] Ghozali, I. (2018). Aplikasi analisis multivariate dengan program IBM SPSS 25. Semarang: Badan Penerbit Universitas Diponegoro.
[8] Gujarati, D. N., & Porter, D. C. (2009). Basic econometrics (5th ed.). New York: McGraw-Hill.
[9] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). Multivariate data analysis (7th ed.). Pearson Education Limited.
[10] Kotler, P., & Armstrong, G. (2012). Principles of marketing (14th ed.). Upper Saddle River, NJ: Pearson Education.
[11] Kotler, P., & Keller, K. L. (2016). Marketing management (15th ed.). Pearson Education Limited.
[12] Lamb, C. W., Hair, J. F., & McDaniel, C. (2012). Marketing (11th ed.). South-Western Cengage Learning.
[13] Listyowati, D., Fadilah, D., Haroen, Y., & Hursepuny, H. (2017). Pengaruh kualitas produk terhadap kepuasan pelanggan lab klinik Prodia. Jurnal Manajemen dan Bisnis, 15(2), 99–108.
[14] Loekito, A. R., & Hukama, L. D. (2017). Pengaruh kualitas pelayanan terhadap kepuasan konsumen. Jurnal Pemasaran, 15(1), 23–34.
[15] Lupiyoadi, R., & Hamdani, A. (2017). Manajemen pemasaran jasa dan kualitas pelayanan. Jakarta: Salemba Empat.
[16] Muhammad, M., & Igo, A. (2022). Pengaruh harga terhadap kepuasan mahasiswa kampus STIM Budi Bakti. Jurnal Ilmiah Manajemen dan Kewirausahaan, 2(1).
[17] Regulation of the Minister for Administrative Reform and Bureaucratic Reform (Permen PAN-RB) No. 3 of 2010. Jabatan Fungsional Pranata Laboratorium Pendidikan dan Angka Kreditnya. Jakarta: Kementerian PAN-RB Republik Indonesia.
[18] Sabran, M. (2012). Pemasaran produk dan perilaku konsumen. Jakarta: Penerbit Universitas Indonesia.
[19] Sekaran, U., & Bougie, R. (2019). Research methods for business: A skill-building approach (8th ed.). John Wiley & Sons.
[20] Simamora, F. N., & Kaharuddin. (2022). Penilaian kinerja vendor dan kepuasan konsumen. Jurnal Manajemen, 12(3), 45–58.
[21] Soegihartono, R. (2020). Strategi pengembangan kualitas produk di industri manufaktur. Yogyakarta: Andi Publisher.
[22] Sugiyono. (2018). Metode penelitian kuantitatif, kualitatif, dan R&D. Bandung: Alfabeta.
[23] Syahza, A. (2011). Manajemen laboratorium perguruan tinggi. Jakarta: Pustaka Pendidikan.
[24] Tjiptono, F. (2013). Strategi pemasaran. Yogyakarta: Andi Offset.
[25] Tjiptono, F. (2016). Pemasaran jasa: Prinsip dan aplikasi (2nd ed.). Yogyakarta: Andi.
[26] Yaman, H. (2016). Manajemen laboratorium modern. Bandung: Alfabeta.
[27] Yp Fun, C., & Js Hung, K. (1997). Vendor performance evaluation model: A case study in industrial companies. International Journal of Production Research, 35(7), 1729–1745.