# The Role of Service Quality in Improving Customer Satisfaction: A Study in the Hospitality Business of University

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| Keywords | Abstract |
|---|---|
| | This research aims to analyze the dimensions of Service Quality, analyze service attributes, and analyze the influence of Service Quality on Customer Satisfaction at the Hospitality Business. Universitas Terbuka (UT), as a State University with Legal Entity (SU-LE) in Indonesia, operates various business units, including hospitality services such as guesthouses and meeting facilities. This research focuses on analyzing the service quality and customer satisfaction within these hospitality services of UT. UT aims to improve non-tuition revenue streams through its business operations, making the quality of its hospitality services a crucial aspect of its overall performance. Respondents who completed this study were as many as 379 customers of guesthouses and meeting facilities. The data used in this study is primary data sourced from questionnaires distributed to customers. The research methods used are gap analysis, IPA analysis, and the Structural Equation Model. The variables that influence customer satisfaction are tangible and responsiveness variables, while the variables reliable, assurance and empathy do not influence guest house UT customer satisfaction. This research contributes to the attributes of service quality and customer satisfaction in a state university hospitality business. This study is an exploration of each customer's preferences regarding perceived satisfaction and the level of importance expected for the services provided by hospitality businesses. |

## 1 Introduction

The Universitas Terbuka (UT) is one of the universities that is transforming into a State University with a Legal Entity (SU-LE) in 2022. The change in status to SU-LE will provide wider autonomy. This autonomy focuses on three main areas, namely in the academic sector, in the field of Organization and Governance, as well as in the areas of financial prognosis, assets, and human resources. Financial autonomy is the focus of this research, whereas PTN-BH UT is required to have larger and more innovative non-SPP income sources.

UT's non-SPP income sources come from its own business income and academic administration income. Own business income through income from UT business units originating from the Services and Facilities Division in the form of cooperation in utilizing assets in the form of renting business buildings for the Karunika Cooperative office, partner bank services, and use of supporting facilities (guesthouse and meeting

rooms) for training and meetings with members. partner employees as well as for weddings and other events (Rector's Annual Report). Apart from that, BPPU UT is also developing cooperation to utilize UT expertise services which are managed professionally by the Training Institute Division.

The Training Institute Division manages requests for expertise services in the form of instructional training and consultations on the Distance Education system which appears to be increasing, textbook writing, management and accountability of BOS funds, and school financial accounting. All UT services or business units managed by BPPU are UT hospitality businesses. In general, the hospitality business is a service-based business or public service to guests. Hospitality or friendliness is the main key to the success and smooth running of public services.

Based on the Chancellor's Annual Work Report for 2019 and 2020, it is known that there has been a decrease in business unit income sources due to the Covid-19 pandemic situation, several UT business unit components that have decreased including asset utilization and training by BPPU (70%), Online Exams (23%), Bank services (31%), TBO (45%), and Atpem Tutorial (9%). Meanwhile, the Admissions component, PPs, and KTM exams experienced an increase of 185% (Open University, 2020). Based on preliminary studies, it is known that for three consecutive years, 2019, 2020, and 2021, there was a decrease in the average occupancy rate of UT guesthouses and the average rate of UT courtroom renters.
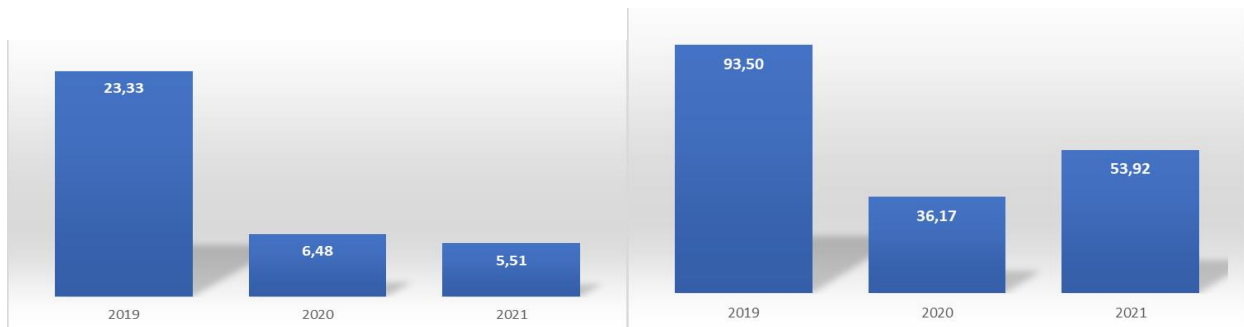


Figure 1. Average Occupancy Rate for Guesthouses and Average Rate for Courtroom Tenants

Figure 1 shows that UT's existing hospitality business units, namely lodging and UT courtroom rental, experienced a decline in customers. In 2020 there was a very drastic decline, the main cause being the COVID-19 pandemic and the government's establishment of PPKM. However, the average occupancy rate for Wisma UT accommodation has not increased during the new normal conditions in 2021. The contribution of Business Units to UT PNBP in 2020 was 0.24%, down from 0.74% in 2019. Income from BPPU comes from asset utilization and training amounting to IDR 2,666,060,470.00, a decrease of 70% compared to 2019. The decrease in the average occupancy rate of UT guesthouses is closely related to the quality of services provided. UT guesthouse accommodation is a source of business unit income (BPPU) which comes from consistent and profitable asset utilization. UT guesthouses are one of UT's dominant hospitality businesses. The hospitality business is a service-based business or public service to guests (Wolor, Christian Wiradendi, and Sari, 2021). Hospitality or friendliness is the main key to the success and smooth running of public services. The hospitality business is closely related to Service Quality and Customer Satisfaction. Service quality is needed in the hospitality business considering that customers have hopes or expectations that always want to be fulfilled and satisfied. Customers always hope to get maximum service from service providers (Sienny, 2001).

This phenomenon and preliminary study are the background for this research, where the author tries to analyze the service quality and satisfaction of lodging customers and which in the end can develop a UT hospitality business model that is ideal, profitable, and follows the characteristics of the Universitas Terbuka as a SU-LE. The contribution of this research is to analyze the hospitality business of a university in Indonesia and find out how the quality of service provided to customers and customer expectations for the services provided will influence the level of consumer satisfaction.

## Literature Review

Hospitality means friendliness, politeness, familiarity, and mutual respect. When viewed from the action dimension, hospitality means an object, so hospitality can be in the form of accommodation business, food and beverage restaurant service business, tourist and recreation attractions, health and spa as well as other forms

of service business that adopt hospitality in their services (Wolor, 2021). Based on this, we often call it a hospitality business, which is a various form of business that involves service, the dominant contact is from human to human (people to people) by business people in determining customer satisfaction. According to Hermawan et al (2018), the hospitality business is a business about how to manage relationships between people, between business actors as good hosts and customers as guests.

The Service Quality Scale (SERVQUAL) initially consisted of ten dimensions, which then after further testing by Parasuraman, A; Zeithami, Valarie A; Berry (1985) reduced from ten to five dimensions. The five main dimensions of SERVQUAL are reliability, responsiveness, assurance and empathy, and tangibles. The SERVQUAL model is one of the most widely used models to evaluate customer expectations and their perceptions of service quality. The main dimensions of SERVQUAL used are (Chui et al., 2016; Parasuraman, A; Zeithami, Valarie A; Berry, 1985):

1. Tangibles, something that is visible or tangible in service must accurately project the quality of the service to be provided including physical facilities, equipment, employees, and communication facilities (Mariana et al., 2020). Tangibles are available physical facilities, equipment communication facilities, etc. that can and must be present in the service process. Assessment of this dimension can be expanded in the form of relationships with other consumers who use services.
2. Reliable, leaving consumers waiting, especially without a clear reason, will create a negative impression that should not occur. Unless this error is addressed very quickly, it can become something memorable and a pleasant experience.
3. Assurance, namely the ability to convey trust and confidence to customers through the services provided (Chui et al., 2016). Assurance includes the knowledge, ability, friendly, polite, and trustworthy nature of contact personnel for Reliability, namely the ability to realize promises made in the form of service performance immediately, accurately, and satisfactorily (Mariana et al., 2020; Yousapronpaiboon, 2014). Reliability is the ability to provide promised services accurately and the ability to be trusted, especially in providing services promptly, in the same way as promised, and without making mistakes every time.
4. Responsiveness, namely the responsiveness of lecturers and employees to serve students well and satisfactorily. In other words, good faith to respond quickly to help resolve problems and provide services to customers (Chui et al., 2016; Mariana et al., 2020). Responsiveness is the willingness or desire of employees to help and provide services that consumers need. eliminate the nature of consumer doubts and feel free from danger and risk.
5. Empathy, namely the ability to provide more personal or intimate attention to consumers (Mariana et al., 2020; Yousapronpaiboon, 2014). Empathy includes the attitude of personal and company contact to meet consumer needs and difficulties, good communication, personal attention, and ease of communication or relationships.
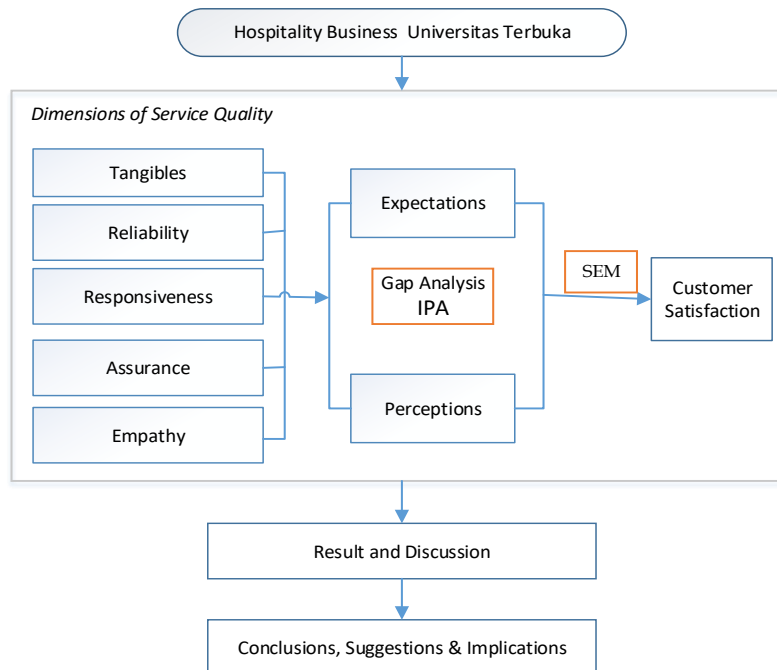
Figure 2. Research Framework of The Study

The research conceptual framework is a research roadmap that includes research stages over 2 years. The first year's research was quantitative research using a survey method on service quality and customer satisfaction of open university hospitality businesses. The five dimensions of service quality will be analyzed using the Gap Analysis method and all service attributes will be mapped using the Importance-Performance Analysis (IPA) Matrix.

## 2   Materials and Methods

The research method used is a quantitative approach. Quantitative methods were used in research regarding service quality, business development priorities, and customer satisfaction. The data used in this research is primary data. Primary data is data obtained directly from data sources. The data sources for this research are in the form of questionnaires distributed to visiting customers, interviews, and observations. The population in this study were guests of the Open University's hospitality business during the last 6 months, either staying overnight or using the court and meeting rooms. The sampling technique in this research is by using Accidental Sampling. Accidental sampling is the process of taking respondents to be used as samples based on samples that the researcher happens to meet. then respondents who are deemed suitable are used as data sources (Sugiyono, 2018). The sample data used in this research was 380 customers.

A questionnaire was used to collect data about service quality and customer satisfaction of hospitality business users at the Open University from 2019 to 2021. The questionnaire used a 5-point Likert scale: 1 = strongly disagree and 5 = strongly agree. The questionnaire covers five dimensions of academic service quality, namely tangibles, reliability, responsiveness, assurance, and empathy which were adopted and modified by (Chui et al., 2016; Mariana et al., 2020; Mulyono et al., 2020; Sembiring & Rahayu, 2020; Udo et al., 2011). The stages of data analysis carried out in the research are as follows:

a.   Gap analysis SERVQUAL method

The SERVQUAL method is one of the most widely used models to evaluate customer expectations and their perceptions of service quality. A 5-point Likert scale was applied to measure the variables. Parasuraman, Zeithaml, and Berry (1985) developed a model and used the words "Perceived service quality" as a substitute for service quality. Perceived service is the result of a comparison between customer expectations before receiving service (expected service) and the customer's actual service experience. Desired expectations include customer demands and desires related to the services provided.

The gap value for each pair of questions uses the formula Zeithaml, et al., 1990 (Tjiptono, 2019).
Gap Score = Average Perception Score – Average Expectation Score.
b.    Importance-Performance Analysis (IPA) matrix

The IPA matrix consists of an X-axis representing importance and a Y-axis representing performance. The results of the IPA Matrix are in the form of four quadrants, each quadrant is a combination of interest and performance given by respondents for each service with different values. The four science quadrants have the following characteristics (Silva & Fernandes, 2010); Quadrant A (Concentration here) – high importance, low performance: requires immediate attention for improvement and is a major weakness; Quadrant B (Staying with good work): high importance, and high performance, indicates opportunities to achieve or maintain competitive advantage and is a key strength; Quadrant C (Low priority) - low importance, low performance: is a minor weakness and does not require additional effort; and Quadrant D (Likely redundant) – low importance, high performance: indicates that business resources committed to this attribute would be redundant and should be used elsewhere.
c.    Test the hypothesis using the Structural Equation Model (SEM) method

This research uses Structural Equation Modeling (SEM) analysis with PLS software to process data. Seven steps must be taken to prepare a path analysis, namely (Ferdinand, 2016): (1) Development of a Theoretical Model; (2) Development of Path Diagrams or flow charts; (3) Convert flow diagrams into structural equations and measurement models; (4) Selecting input matrices and model estimation; (5) Analyze possible identification problems; (6) Evaluation of goodness of fit criteria; and (7) Evaluation of goodness of fit criteria.

Hypothesis testing is carried out by analyzing the C.R value and P value resulting from processing the Regression Weights test data and then comparing it with the required statistical limits, namely above 1.96 for the C.R value and below 0.05 for the P value. Next, we will discuss hypothesis testing. carried out in stages in the order of the hypotheses that have been proposed. In this research, testing the causal relationship between variables was carried out using a one-sided test at a significance level of 5%.

## 3 Results and Discussion

The respondents sampled in this research were visiting customers of the Open University hospitality business who were deliberately met after using the facilities, either lodging or guest houses, or using courtrooms and meeting rooms during the last 6 months, namely from March to August 2023. The guest customers who were respondents in this study were 161 people or 42% male and the remaining 219 people or 42% were female. The age of the UT guest house customers who were respondents was in the age range of 21 to 30 years, namely 153 people or 40%. Customers aged 31 to 40 years were 24% and customers aged 41 to 50 years were 79 people or 21% of the total number of respondents. Meanwhile, the remainder is 6% of customers aged less than 20 years, 3 people aged more than 60 years or it could be said that it is only 1%. 10 responses did not mention their age profile. The job profile of respondents shown in Figure 2 shows that the majority of visitors work as academics, whether as lecturers, teachers, teaching staff, and even students and students. 14% of guest visitors have jobs as private employees and as many as 42 people or 11% of guest visitors work as Civil Servants (PNS), while 17 guest visitors are entrepreneurs. Some guests do not mention their occupation, namely 14%. Nearly 50% of the visitors who were research respondents had personal goals, while 44% stayed at the UT guesthouse as part of an official assignment by an agency. 7% of visitors did not mention the purpose of using lodging facilities and meeting rooms.

The SERVQUAL method is one of the most widely used models to evaluate customer expectations and their perceptions of service quality. A 5-point Likert scale was applied to measure the variables. The points applied are (1) strongly disagree, (2) disagree, (3) agree, (4) strongly agree, and (5) strongly disagree. The questionnaire covers five dimensions of academic service quality, namely tangibles, reliability, responsiveness, assurance, and empathy. Each indicator will assess the perceived satisfaction (performance) and importance (importance) expected by guest customers. The gap value for each pair of questions uses the formula Zeithaml, et al., 1990 (Tjiptono, 2019). Gap score = Average importance score – Average satisfaction score.

**Reliability and Validity Test**

The reliability test is the extent to which measurement results using the same object will produce the same data (Sugiyono, 2018). Reliability is a tool for measuring a questionnaire which is an indicator of a variable or constructs. A questionnaire is said to be reliable or reliable if one's answers to statements are consistent or stable from time to time. The reliability of a test refers to the degree of stability, consistency, predictability, and accuracy. Measurements that have high reliability are measurements that can produce reliable data (Ghozali, 2018).

A validity test is a test that functions to see whether a measuring instrument is valid or invalid (Ghozali, 2018). The measuring tools referred to here are the questions in the questionnaire. A questionnaire is said to be valid if the questions in the questionnaire can reveal something that is measured by the questionnaire. A questionnaire is said to be valid if the questions on the questionnaire can reveal something that will be measured by the questionnaire. A questionnaire can be said to have high validity if the results carry out its measuring function, or provide precise and accurate measurement results following the intent of the test. A test that produces data that is irrelevant to the purpose of the measurement is said to be a questionnaire that has low validity.

The results of the instrument validity test showed that all environmental, social, and governance variable question items had a p-value product-moment correlation < 0.05 so it was concluded that the questions used to measure environmental, social, and governance variables were valid and worthy of further analysis. From the results of the instrument reliability test, the value of Cronbach's alpha on environmental, social, and governance variables was > 0.7, so it was concluded that the preparation of questionnaire questions regarding environmental, social, and governance was declared reliable and trustworthy as a measuring tool that produces consistent answers.

### *Structural Equation Modeling-Partial Least Square*

The research hypothesis can be accepted if the p-value < 0.05 ($\alpha$=5%). The following is the estimated value of the path coefficient and the results of the research hypothesis test:

**Table 1. Path Coefficient Estimation Value and Hypothesis Testing**

| Path | Original Sample | T Statistics | P Values | Adjusted $R^2$ | Decision |
|---|---|---|---|---|---|
| Tangible → Satisfaction | 0,355 | 2,904 | 0,004 | | Accepted |
| Reliable → Satisfaction | 0,132 | 0,986 | 0,324 | | Rejected |
| Responsiveness → Satisfaction | 0,195 | 2,235 | 0,025 | 0.483 | Accepted |
| Assurance → Satisfaction | 0,050 | 0,429 | 0,668 | | Rejected |
| Empathy → Satisfaction | 0,017 | 0,147 | 0,883 | | Rejected |

Table 1 shows that the path coefficient for the influence of tangibles on satisfaction is 0.355 with a p-value of 0.004 < 0.05. These results conclude that tangible has a significant effect on satisfaction. This means that the better the tangible factors can significantly increase satisfaction. Based on these results, the hypothesis which suspects that tangible factors influence satisfaction can be accepted (Ha is accepted). The path coefficient for the influence of reliable influence on satisfaction is 0.132 with a p-value of 0.324 > 0.05. These results conclude that reliability has no significant effect on satisfaction. This means that the better the reliability factor, the satisfaction does not increase significantly. Based on these results, the hypothesis which suspects that reliable factors influence satisfaction cannot be accepted (Ha is rejected).

The path coefficient for the influence of responsiveness on satisfaction is 0.195 with a p-value of 0.025 < 0.05. These results conclude that responsiveness has a significant effect on satisfaction. This means that the better the responsiveness factor, the satisfaction will increase significantly. Based on these results, the hypothesis that the responsiveness factor influences satisfaction can be accepted (Ha is accepted). The path coefficient for the influence of assurance on satisfaction is 0.050 with a p-value of 0.668 > 0.05. These results conclude that assurance has no significant effect on customer satisfaction. This means that the assurance factor that is getting better does not significantly increase satisfaction. Based on these results, the hypothesis that the assurance factor influences satisfaction cannot be accepted (Ha is rejected). The path coefficient for the influence of empathy on satisfaction is 0.017 with a p-value of 0.883 > 0.05. These results conclude that empathy has no significant effect on customer satisfaction. This means that the empathy factor getting better

does not significantly increase satisfaction. Based on these results, the hypothesis that the empathy factor influences satisfaction cannot be accepted (Ha is rejected).

The R-Square value shows how much the exogenous variable can explain (influence) the endogenous variable. The R-Square value shows how much the exogenous variable can explain (influence) the endogenous variable. It is known that the R-Square value of the investment decision variable is 0.483, which means that the percentage of customer satisfaction that can be explained by tangible, reliable, responsiveness, assurance, and empathy is 48.3%, while the remaining 51.7% is explained by other variables outside the model.

**Discussion**

The Universitas Terbuka as one of the public service educational institutions is expected to be able to improve its performance, especially services to the community by practicing healthy business. A competitive service business means being able to provide services to the public at market prices or below but still paying attention to the quality of the services provided. The results of this research empirically prove that service quality from the five dimensions has a significant effect on student satisfaction. UT guesthouse customer satisfaction is influenced by service quality in five dimensions, namely Tangibles, Reliability, Responsiveness, Assurance, and Empathy. Service quality influences satisfaction as proven in this research, this is in line with research results (Bass et al. 2003; Hasan et al. 2009; Hanaysha et al. 2011; Chui et al. 2016; Weerasinghe and Fernando 2018; Anisah et al. 2020; Mariana et al. 2020; Mulyono et al. 2020; Naim 2020). According to Nalurita & Mulyanto, 2021 service quality will influence satisfaction.

Tangibles or the physical form of the university are the location of the UT guest house, the cleanliness and comfort of the space, and the availability of other supporting facilities. If the physical evidence provided is good, student expectations will be high. The better the customer's perception of the tangibles or physical evidence of the guest house or accommodation, the higher the satisfaction will be and vice versa, if the customer's perception of the physical evidence is weak, the satisfaction will also be lower. This supports several previous studies, including (Hasan et al. 2009; Hanaysha et al. 2011; Chui et al. 2016; Mulyono et al. 2020). The forms of service in the form of Tangibles provided by the UT guest house include the following: The location of the university is strategic and easily accessible, clean and comfortable rooms are available, has an attractive layout, attractive room facilities are available, has comfortable room facilities, provides complete amenities, has various facilities such as a gym, tennis court, sauna, sufficient fire extinguishers are available, has a complete meeting room, has a comfortable environment, promotional materials via leaflets, web and social media.

There is no significant influence between Reliability and customer satisfaction. The results of this study are in line with (Hasan et al. 2009; Hanaysha et al. 2011; Dursun et al. 2013; Hazilah Abd Manaf et al. 2013; Shaari 2014; Chui et al. 2016; Weerasinghe and Fernando 2018; Mulyono et al. 2020). Reliability is the university's ability to provide services following what is promised accurately and reliably. The form of service included in Reliability relates to Wisma UT employees being able to provide services as promised, Wisma UT employees being reliable in resolving guest service problems, Wisma UT providing clear information about the quality of their services, Wisma UT having accurate service performance, Wisma UT provides timely service, UT guesthouse resolves service problems sincerely, and UT guesthouse maintains the confidentiality of guest data.

Responsiveness influences customer satisfaction. The results of this study support research (Hasan et al. 2009; Hanaysha et al. 2011; Ahmed and Mehedi Masud 2014; Chui et al. 2016; Mulyono et al. 2020). There is no significant influence between assurance and satisfaction. Thus the hypothesis which states that there is no significant influence between assurance and satisfaction can be accepted. These results are in line with research (Hasan et al. 2009; Hanaysha et al. 2011; Dursun et al. 2013; Hazilah Abd Manaf et al. 2013; Ahmed and Mehedi Masud 2014). Empathy does not affect customer satisfaction. Wisma UT employees give special attention to each guest, Wisma UT employees understand the specific requests of each guest, Wisma UT employees serve them wholeheartedly, and Wisma UT employees receive positive feedback from each guest. The research results are as follows (Hasan et al. 2009; Hanaysha et al. 2011; Dursun et al. 2013; Ahmed and Mehedi Masud 2014; Shaari 2014). However, the results of this study are not in line with (Hazilah Abd Manaf et al. 2013; Chui et al. 2016).

## 4 Conclusions

The tangible dimension of the biggest gap value occurs in the swimming pool facility indicator. The reliable dimension that has the largest gap value is accurate service performance. The largest gap value in the responsiveness dimension is the indicator that UT guesthouse employees are ready to respond to guest requests. The indicator that UT guesthouse employees know to provide information services regarding areas around UT (malls, tourist attractions, etc.) is the indicator that has the largest gap value in the assurance dimension. The last one is an indicator that UT guesthouse employees understand the specific requests of each guest who has the largest gap in the empathy dimension. There are no variables in quadrant A or it could be said that the Open University's hospitality services. The Responsiveness and Assurance variables are in quadrant B, which means that variables have a relatively high level of satisfaction so they must be maintained. Quadrant C is the low-priority quadrant with low satisfaction values and low importance, namely Tangible and Empathy. Variables that are in quadrant D (Possibility of exaggeration) - low importance, high performance. Variables that are considered less important and excessive so they can be reduced to save costs are Reliable. A competitive service business means being able to provide services to the public at market prices or below but still paying attention to the quality of the services provided. The variables that influence customer satisfaction are tangible and responsiveness variables, while the variables' reliability, assurance, and empathy do not influence guest house UT customer satisfaction.

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