

Assessment of Service Quality on Public Satisfaction in Motor Vehicle Testing: A Study of the Transportation Department in Paser Regency

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Article Information:

Received: May 01, 2024, Accepted: May 22, 2024, Published: May 31, 2024

Abstract

In an increasingly competitive era of public service, understanding the factors that influence public satisfaction is crucial for enhancing service quality. The primary objective of this study is to identify and analyze the impact of five service quality dimensions—tangibles, reliability, responsiveness, assurance, and empathy—on public satisfaction. This research also aims to provide recommendations for improving service quality at the Department of Transportation in Paser Regency. The study employs a quantitative approach using a survey method. Data were collected from 60 respondents who had used motor vehicle testing services within the last six months. Purposive sampling was employed to determine the sample, and data were gathered through questionnaires adapted from the SERVQUAL instrument. Data analysis was conducted using Structural Equation Modeling (SEM) to examine the relationships between variables. The findings indicate that of the five service quality dimensions tested, only assurance and empathy positively and significantly impact public satisfaction. Assurance was the most dominant factor, highlighting that the knowledge and competence of staff in providing safe and reliable services are crucial to the public. Empathy also plays a significant role, as attention and understanding of individual needs enhance satisfaction. Conversely, tangibles, reliability, and responsiveness did not significantly impact public satisfaction, suggesting that other factors might be more influential in this context. The managerial implications of these findings include the need for improvements in supporting facilities, regular training for staff, increased responsiveness, and the development of empathetic attitudes. With these measures, service quality is expected to improve, significantly enhancing public satisfaction.

Keywords: Service Quality; Public Satisfaction; Motor Vehicle Testing; SERVQUAL Dimensions.

JEL Codes: M10, M21, M55

How to Cite:

Idris, M., Geraldina, I., Gunarto, M.. (2024). Assessment of Service Quality on Public Satisfaction in Motor Vehicle Testing: A Study of the Transportation Department in Paser

Regency *International Journal of Business, Management, and Economics*, 5(2). pp. 197 – 204.
DOI: <https://doi.org/10.47747/ijbme.v5i2.1870>

1. Introduction

In today's digital era, service quality is one of the determining factors for success for organizations, both in the private and government sectors. Government agencies focusing on public services, such as the Transportation Agency, must provide maximum service to achieve community satisfaction. Good service quality increases user satisfaction and builds trust and loyalty. Previous research by Famiyeh, Asante, and Darko (2018) showed that reliability, atmosphere, and social factors have a significant positive relationship with customer satisfaction. (Famiyeh et al., 2018, 2020). However, employee assurance and responsiveness do not have a significant relationship. Research by Fatima, Malik, and Shabbir (2018) also confirms that the quality of health services positively affects patient satisfaction, especially in the aspects of the physical environment and communication. (Fatima et al., 2018). Mega (2018) found that service quality has a significant effect on public satisfaction in the transportation sector (Mega, 2018) However, few studies have examined the influence of service quality on community satisfaction in the context of testing motor vehicles in local government agencies such as the Paser Regency Transportation Office.

Service is an action or effort an organization makes to satisfy its customers. In the context of government, maximum service is the key to increasing community satisfaction. The Paser Regency Transportation Office, as one of the government agencies, has an important role in providing motor vehicle testing services. The services' quality covers various aspects ranging from physical facilities to personal interactions between employees and the community. The Paser Regency Transportation Office ensures that motorized vehicles operating in its area have met the set safety standards. This test is important to reduce the risk of traffic accidents caused by unroadworthy vehicle conditions. However, the services provided so far still have several shortcomings, both in terms of physical facilities and employee competence (Gunarto & Hurriyati, 2020).

This study uses five dimensions of service quality based on the SERVQUAL model: direct evidence, reliability, responsiveness, assurance, and empathy. Direct evidence includes the physical aspects of the facilities and equipment used in vehicle testing. Reliability reflects the service's ability to consistently deliver accurate and reliable results. Responsiveness refers to the willingness and ability of employees to help the community and provide prompt service. Assurance includes knowledge, manners, and the ability of employees to provide a sense of security to the community. Empathy reflects the attention and concern of employees to the needs and desires of the community. This research makes a new contribution with a focus on testing motor vehicles at the Paser Regency Transportation Office, which has not been widely researched before. The study not only measured the influence of service quality in general but also detailed on five specific dimensions: direct evidence, reliability, responsiveness, assurance, and empathy. In addition, this study uses the SEM method which allows for a more complex and in-depth analysis of the relationship between various variables.

2. Literature Review

2.1. Service-Dominant Logic (SDL)

Service-dominant logic (SDL) is an increasingly influential paradigm in the field of marketing

and service management. This concept was introduced by Lusch and Vargo (2014) and emphasized that services, not products, are central to economic exchange. In the context of public services, SDL can be used to understand and improve the quality of services by focusing on the interaction between service providers and service recipients as co-creators of value. Services are the basis of all exchanges (Ballantyne & Varey, 2008; Lusch & Vargo, 2014; Stephen et al., 2020). In the context of public services, all interactions between the government and citizens are seen as an exchange of services. Value is created through interaction and collaboration between service providers and service recipients. Improving the quality of public services must involve the active participation of citizens. All organizations, including public institutions, are service providers (Klafke et al., 2021; Schott & Ritz, 2018). The focus should be on how the service is delivered and the end-user experience (Gunarto et al., 2016; Gunarto & Cahyawati, 2022).

Service quality is a broad and multidimensional concept which encompasses various aspects of the interaction between service providers and customers. Parasuraman, Zeithaml, and Berry (1988) introduced the SERVQUAL model, which identifies five main dimensions of service quality: tangible, reliability, responsiveness, assurance, and empathy (Jiewanto et al., 2012). This model has become the basis for many studies in evaluating the quality of services in various sectors, including the public sector (Armanto & Gunarto, 2022; Gunarto & Widiastuty, 2020).

2.2. Quality of Service in a Public Context

The quality of services in the public sector has unique characteristics that set it apart from the private sector. Public services must be oriented to the interests of the wider community and often face challenges such as budget constraints, complex bureaucracy, and high public expectations. Grönroos (1984) emphasized the importance of public perception of service quality as the main determinant of satisfaction. In the public sector, high quality of services creates satisfaction and increases government trust and legitimacy. Service quality measurement is generally carried out through surveys that assess customer perceptions of various dimensions of service. SERVQUAL is one of the most commonly used instruments. Research by Brady and Cronin (2001) developed an alternative SERVQUAL model, which focuses more on actual performance than expectations. Both models have been widely used and validated in various service contexts, including healthcare, education, and transportation.

2.3. Quality of Service in the Transportation Sector

Research on the quality of services in the transportation sector shows mixed results. Research by Mega (2018) found that service quality has a significant influence on community satisfaction in the transportation sector. This study shows that the reliability and responsiveness dimensions have the greatest influence. In contrast, research by Famiyeh, Asante, and Darko (2018) revealed that reliability and atmosphere have a significant positive relationship with customer satisfaction, while assurance and responsiveness are insignificant. Customer satisfaction results from comparing expectations and perceptions of the quality of service received. Oliver (1980) explained that satisfaction is a function of the difference between initial expectations and actual perception. When the perception of service exceeds expectations, the customer is satisfied; Conversely, when a service does not meet expectations, dissatisfaction occurs. In the context of public services, public satisfaction can increase participation and trust in the government.

Motor vehicle testing is one of the important services provided by the Transportation Department to ensure the safety and feasibility of vehicles on the road. This research focuses on five service quality dimensions in motor vehicle testing at the Paser Regency Transportation Office: direct evidence, reliability, responsiveness, guarantee, and empathy. Direct evidence includes the

physical aspects of the facilities and equipment used in vehicle testing. Parasuraman et al. (1988) stated that direct evidence plays an important role in shaping the customer's initial perception of service quality. In the context of vehicle testing, clean, well-maintained facilities and sophisticated equipment can increase public perception of the quality of services provided.

Reliability refers to the ability of a service to deliver consistent and accurate results. Research by Zeithaml, Berry, and Parasuraman (1996) shows that reliability is the most critical dimension in determining customer satisfaction. In motor vehicle testing, reliability includes accuracy of test results and consistency in service processes. The public expects reliable test results and no errors in the evaluation of the condition of their vehicles. Responsiveness is the willingness and ability of employees to help customers and provide prompt service. According to Bitner, Booms, and Tetreault (1990), high responsiveness can increase customers' positive perception of service quality. In vehicle testing, the public expects employees to be responsive to their questions and complaints, as well as minimal waiting times during the testing process (Behera et al., 2018).

Assurance includes knowledge, manners, and the ability of employees to provide a sense of security to customers. Research by Johnston (1995) emphasizes the importance of guarantees in building customer trust. In the context of vehicle testing, assurance includes the technical competence of employees and their ability to explain the testing process and results to the public clearly and convincingly. Empathy is the attention and concern of employees to the needs and desires of customers. Parasuraman et al. (1988) showed that empathy can improve the personal relationship between employees and customers, which in turn increases customer satisfaction. In vehicle testing, empathy is shown through the friendly attitude and attention of employees to the special concerns and needs of the community.

3. Research Method

This study uses a quantitative approach with a survey method to collect data from respondents. The quantitative research design was chosen because it allows the researcher to objectively measure the variables involved and analyze the relationships between these variables. This approach is suitable for testing hypotheses about the influence of service quality on community satisfaction in the context of testing motor vehicles at the Paser Regency Transportation Office. The data in this study was collected through a questionnaire distributed to respondents. The questionnaire consists of two main parts: the demographic section and the section that measures the perception of service quality and community satisfaction.

The population in this study is all people who use motor vehicle testing services at the Paser Regency Transportation Office. Because this population is very large and difficult to reach ultimately, it is necessary to draw a representative sample. Samples were taken using the purposive sampling technique, which is a sampling technique with certain considerations relevant to the research objectives. In this case, the samples taken are people who have used motor vehicle testing services at the Paser Regency Transportation Office in the last six months. This technique was chosen to ensure that respondents had first-hand experience with the services provided, so that they could provide accurate and relevant assessments. The number of samples in this study was 60 respondents (Gunarto, 2018).

The data that has been collected is analyzed using two main methods: descriptive analysis and inferential analysis with the Structural Equation Model (SEM) approach. Descriptive analysis was used to provide an overview of the characteristics of respondents and the distribution of their answers to the questions in the questionnaire. This technique involves calculating descriptive statistics such as mean, median, mode, and standard deviation for each item in the questionnaire.

Descriptive analysis was carried out using SPSS 22 software. The Structural Equation Model (SEM) was chosen as an inferential analysis technique because it allows the analysis of complex relationships between various variables. SEM can test the direct and indirect relationship between latent variables and manifest variables, as well as test the overall fit of the model. The SEM used is SEM-PLS (Partial Least Square) because the number of samples is relatively small.

4. Findings and Discussions

4.1 Profile Respondent

The survey has been conducted on 60 respondents, and the profiles of respondents by age are presented in Table 1.

Table 1. Respondent Profiles by Age

No	Age (year)	Sum	Percentage
1	15 - 24	4	6.67
2	25 - 34	14	23.33
3	35 - 44	13	21.67
4	45 - 54	16	26.66
5	55 - 64	3	5
Total		60	100

Respondents aged 15-24 years were 4 people (6.67%), 25-34 years old were 14 people (23.33%), 35-44 years old were 13 people (21.67%), 45-54 years old were 16 people (26.66%), and 55-64 years old.

Based on gender, the respondents in this study were dominated by men with a total of 51 people (85%) and 9 women (15%). The profile of respondents based on education is the majority of 40 people (66.67%) who have high school education, as many as 2 people (3.33%) who have elementary education, as many as 7 people (11.67%) who have junior high school education, as many as 2 people (3.33%) who have diploma education and as many as 9 people (15%) who have Strata 1 education.

4.2 Measurement Model Analysis

The analysis of the measurement model (outer models) is carried out to test the reliability of a construct or indicator consisting of convergent validation (loading factor and Average Variance Extraced / AVE) and discrimination validation (former lecker and cross loading). The validity of convergence is measured through a loading factor with a value limit of 0.7. Based on the initial iteration, the loading factor values for the X14, X43, and X44 indicators were below 0.7, so this indicator was excluded from the construction. The AVE measurements showed that all variables had a > value of 0.5, making them valid for further analysis. The AVE value for the Direct Evidence variable was 0.692, Reliability 0.832, Responsiveness 0.891, Assurance 0.725, Empathy 0.673, and Community Satisfaction 0.586. The validity of discrimination is tested using the Fornell-Larcker method, where the value of the variable's correlation with itself must be greater than that of other variables. The results show that the validity of discrimination is met for all variables. Reliability testing was carried out using Cronbach's Alpha and Composite Reliability values. All variables have a Cronbach's Alpha value of > 0.7 and a Composite Reliability > 0.8, indicating that the variable construct is reliable.

4.3 Structural Model Analysis

Based on the calculation of R², it was obtained at 0.72.4, meaning that public satisfaction was

influenced by direct evidence, reliability, responsiveness, assurance and empathy by 72.4% while the remaining 27.6% was likely to be influenced by variables other than the five exogenous variables studied.

The estimation results on the structural model and hypothesis testing are carried out by bootstrapping on SEM-PLS as shown in Table 2. The significance value is used to express the significance of the relationship between pathways to see the strength of the relationship between variables. The bootstrapping procedure can obtain this significant value, which results in a T value (T value > 1.96.) or a P value < 0.5.

Table 2. Results of Hypothesis Estimation and Testing

Hypothesis	Original Sample	T Statistics (O/Stdev)	P Values
Direct Evidence -> Community Satisfaction	-0,006	0,039	0,969
Reliability -> Community Satisfaction	-0,041	0,428	0,669
Responsiveness -> Community Satisfaction	-0,041	0,586	0,558
Community Satisfaction > Guarantee	0,622	4,605	0,000
Empathy > Community Satisfaction	0,360	2,630	0,009

Table 2 shows the path coefficient analysis, which shows that Assurance (0.622) and Empathy (0.360) have a positive influence on Community Satisfaction, while Direct Evidence (-0.006), Reliability (-0.041), and Responsiveness (-0.041) have no significant influence.

The study results show that the Guarantee and Empathy variables positively and significantly influence Community Satisfaction with vehicle testing services at the Paser Regency Transportation Office. This signifies that the better the assurance and empathy the service provider provides, the higher the level of community satisfaction. Guarantees are the most dominant variable affecting community satisfaction, and they show that the community pays great attention to the guarantee aspect of service. The guarantee includes confidence in the safety and reliability of the services provided. Empathy also has a significant influence on community satisfaction. This shows that attention and understanding of the individual needs of service users play an important role in increasing satisfaction.

Although the Direct Evidence, Reliability, and Responsiveness variables did not show a significant influence, they still played a role in creating overall satisfaction. The study found that physical factors, service reliability, and staff responsiveness do not directly affect satisfaction but may indirectly affect user perception.

5. Conclusion

This study concludes that to increase public satisfaction in vehicle testing services at the Paser Regency Transportation Office, the main focus must be on assurance and empathy. Improving quality in these areas can create trust and positive perceptions among service users.

Thus, this study's results make a significant contribution to the development of strategies to improve public services, especially in the context of motor vehicle testing. Further research can expand the variables and samples for more comprehensive results and better generalizations.

References

- Armanto, R., & Gunarto, M. (2022). Analisis Dampak Media Sosial Terhadap Penjualan Perumahan: Studi Empiris Penggunaan Iklan Facebook dan Instagram. *Jurnal Bisnis, Manajemen, Dan Ekonomi*, 3(1), 45–55. <https://doi.org/10.47747/jbme.v3i1.626>
- Ballantyne, D., & Varey, R. J. (2008). The service-dominant logic and the future of marketing. *Journal of the Academy of Marketing Science*, 36(1), 11–14. <https://doi.org/10.1007/s11747-007-0075-8>
- Behera, J. P., Scholar, M. T., & Engineering, I. (2018). *Impact of Service Quality on Customer Loyalty in Indian Banking Sector in Odisha*. June. <https://doi.org/10.18231/2454-9150.2018.0165>
- Famiyeh, S., Asante-Darko, D., & Kwarteng, A. (2018). Service quality, customer satisfaction, and loyalty in the banking sector: The moderating role of organizational culture. *International Journal of Quality & Reliability Management*, 35(8), 1546–1567.
- Famiyeh, S., Asante-Darko, D., Kwarteng, A., Gameti, D. K., & Asah, S. A. (2020). Corporate social responsibility initiatives and its impact on social license: some empirical perspectives. *Social Responsibility Journal*, 16(3), 431–447.
- Fatima, T., Malik, S. A., & Shabbir, A. (2018). Hospital healthcare service quality, patient satisfaction and loyalty: An investigation in context of private healthcare systems. *International Journal of Quality & Reliability Management*, 35(6), 1195–1214.
- Gunarto, M. (2018). *Analisis Statistik dengan model persamaan struktural (SEM) Teoritis dan Praktis*. Alfabeta.
- Gunarto, M., & Cahyawati, D. (2022). Experience Value as a Mediator Variable for Co-Creation Relationship on Alumni Loyalty: Using the SEM-PLS Model Approach. *Jurnal Organisasi Dan Manajemen*, 18(1), 46–59. <https://doi.org/10.33830/jom.v18i1.1311.2022>
- Gunarto, M., & Hurriyati, R. (2020). CREATING EXPERIENCE VALUE TO BUILD STUDENT SATISFACTION IN HIGHER EDUCATION. *Dinasti International Journal of Education Management And Social Science*, 1(3), 349–359. <https://doi.org/10.31933/DIJEMSS>
- Gunarto, M., Nugraha, D. Y., Gaffar, V., Yudistira Nugraha, D., & Gaffar, V. (2016). Analysis of perception and public preference on reputation of higher-education ranking agencies. *2016 Global Conference on Business, Management and Entrepreneurship*, 15, 364–370. <https://doi.org/10.2991/gcbme-16.2016.65>
- Gunarto, M., & Widiastuty, Y. (2020). THE EFFECT OF COMPENSATION AND COMMITMENT TO EMPLOYEE MOTIVATION IN A SUB-DISTRICT PALEMBANG. *Dinasti International Journal of Management Science*, 1(5), 635–645. <https://doi.org/10.31933/DIJMS>
- Jiewanto, A., Laurens, C., & Nelloh, L. (2012). Influence of Service Quality , University Image , and Student Satisfaction toward WOM Intention : A Case Study on Universitas Pelita Harapan Surabaya. *Procedia - Social and Behavioral Sciences*, 40(2), 16–23. <https://doi.org/10.1016/j.sbspro.2012.03.155>
- Klafke, R., Flávio Von Der, O., Didonet, S. R., & Toaldo, A. M. M. (2021). Service-dominant logic and nonprofit organizations: A value creation perspective. *Journal of Nonprofit & Public Sector Marketing*, 33(1), 65–83.

- Lusch, R. F., & Vargo, S. L. (2014). *Service-Dominant Logic*. Cambridge University Press.
- Mega, A. F. (2018). *Pengaruh Kualitas Pelayanan terhadap Kepuasan Masyarakat di Seksi Pengujian Kendaraan Bermotor Dinas Perhubungan Kabupaten Tanah Datar*.
- Schott, C., & Ritz, A. (2018). The dark sides of public service motivation: A multi-level theoretical framework. *Perspectives on Public Management and Governance*, 1(1), 29–42.
- Stephen L. Vargo, Kaisa Koskela-Huotari, J. V. (2020). Service-dominant logic: Foundations and applications. In *The Routledge Handbook of Service Research Insights and Ideas* (1st ed., p. 21).

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