

The Influence of Government Fleet Maintenance Service on Client Satisfaction: A Case of Tanzania Electrical and Mechanical Services Agency

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Abstract—This study evaluates how the quality of government fleet maintenance services influence client satisfaction at TEMESA in Tanzania. It focused on five main service quality dimensions: tangibility, reliability, responsiveness, assurance, and empathy. The research followed a positivist philosophy and a deductive approach, using a cross-sectional design to collect quantitative data. A sample of 201 employees from NHIF, TANESCO, and TRA in Dar es Salaam was selected through simple random sampling. Data were gathered using structured questionnaires and analysed using SPSS, employing descriptive statistics such as means and standard deviations, as well as inferential analyses including correlation and multiple regression. The findings revealed mixed results. Tangibility and assurance showed no significant influence on client satisfaction, indicating they did not play a major role in improving fleet maintenance service quality. On the other hand, reliability and responsiveness had significant positive influence, meaning that when services were dependable and promptly delivered, clients were more satisfied. Interestingly, empathy had a significant but negative influence, suggesting that too much personal concern or emotional involvement from service providers could reduce satisfaction. The study concludes that improving reliability and responsiveness is crucial for enhancing client satisfaction in government fleet maintenance. However, managing empathy appropriately is necessary to prevent dissatisfaction. It recommends that TEMESA strengthen systems to ensure timely and reliable services and train staff to maintain professionalism while interacting with clients. The study provides useful guidance for public institutions to improve service quality and enhance customer satisfaction.

Keywords — Government fleet maintenance, service quality, client satisfaction, tangibility, reliability.

I. INTRODUCTION

In the service industry, client satisfaction is a critical component that determines the success of service delivery and serves as a measure of a firm's operations performance (Obaid & Ahmadb, 2022). Client satisfaction refers to the degree to which a firm's products and services meet or exceed clients' expectations, resulting in positive relationships and loyalty towards the firm's offerings (Alblooshi et al., 2023). In many production firms, client satisfaction has been used as a key performance indicator that reflects how well the firm's output meets clients' needs (Chan et al., 2021). This performance is often measured by considering consumer feedback on the taste of products or the repeated purchase of goods or services. Customer satisfaction is a function of service quality in relation to customer perception. In the broad literature, service quality in relation to user satisfaction has been extensively documented using the SERVQUAL model (Zaazou & Hamdy, 2025). Scholars have applied different models to measure satisfaction regarding specific service delivery dimensions associated with these measurements (Taufiqurokhman et al., 2025).

In the developing world, including African countries, it is common for governments to provide services to their institutions through their own agencies (Obaid & Ahmadb, 2022). Governments use these agencies as a strategy to control public resources, facilitate monitoring, and maintain transparency. In institutional contexts, satisfaction with fleet maintenance services involves evaluating the quality provided by one public agency to another (Nworah, 2020). This implies that a government agency offers maintenance services to vehicle fleets of public enterprises (Septa et al., 2025). The concept of client satisfaction with government agency services is significant given that these agencies are often monopolistic institutions (Chan et al., 2021). In this regard, institutions face limited options for choosing service providers outside of government agencies. However, despite the monopolistic nature of government agencies, providing quality fleet maintenance services remains fundamental in promoting satisfaction among clients entitled to these services.

The importance of fleet maintenance services for government vehicles has gained wider attention due to its significant contribution to public service delivery (Alblooshi et al., 2023). Sofyani, Riyadh, and Fahlevi (2020) highlight that, fleet maintenance services provide preventive care for public vehicles through repairs and operational management. According to Zaazou and Hamdy (2025), fleet maintenance is essential for sustaining the reliability of government assets and enhancing efficiency in service delivery. Clients are often satisfied with vehicle maintenance services based on their expectations of quality. Alkraihi and Ameen (2022) observe that properly maintained fleets promote continuity in service delivery, reduce costly disruptions, and minimize accident risks. Sofyani et al. (2020) further note that the quality of fleet maintenance services significantly influences the satisfaction of government clients, particularly department heads, drivers, and fleet managers.

The Tanzania Electrical, Mechanical and Electronics Services Agency (TEMESA) is responsible for maintaining and repairing government-owned vehicles, motorcycles, and machines that support public service delivery in key sectors such as health, energy, taxation, and security. Proper maintenance of these fleets is essential for efficient and reliable government operations. However, TEMESA has been facing many challenges, including delays, high service costs, poor-quality spare parts, weak communication, and failure to follow maintenance standards. These issues have reduced the reliability of government vehicles, increased costs, and caused delays in public service delivery. According to a report by the Controller and Auditor General (CAG, 2020/2021), only 8% of clients were satisfied with TEMESA's services, while 92% were dissatisfied. This problem is worsened by TEMESA's monopoly, as it is the only authorized provider of maintenance services for over 15,000 government vehicles, leaving clients without alternatives. The lack of competition raises concerns about accountability and service quality. Despite the importance of fleet maintenance for public service delivery, few independent studies have evaluated TEMESA's performance or client satisfaction. Therefore, this study aims to assess the quality of TEMESA's fleet maintenance services using the SERVQUAL model to identify service gaps between client expectations and actual performance. By focusing on major clients such as NHIF, TANESCO, and TRA, the study will provide evidence-based recommendations to improve service quality, accountability, and the reliability of government fleets.

II. LITERATURE REVIEW

Theoretical Framework

SERVQUAL model

The SERVQUAL model was developed by Parasuraman, Zeithaml, and Berry (1985) to evaluate service quality based on five key dimensions: tangibility, reliability, responsiveness, assurance, and empathy. Each dimension plays an important role in shaping a customer's perception of service quality. Tangibility refers to the physical appearance of the facilities, equipment, and environment in which services are delivered. Reliability focuses on the ability of a service provider to deliver promised services accurately and dependably. Responsiveness involves the willingness and promptness of the service provider in assisting clients and addressing their concerns. Assurance relates to the knowledge, competence, and trustworthiness of staff in providing services. Lastly, empathy emphasizes the ability of the organization to understand and respond to the specific needs and expectations of individual customers.

The SERVQUAL model is based on several assumptions. First, it assumes that customers evaluate service quality by comparing their expectations with their perceptions of the actual service received. Second, it assumes that the five dimensions are sufficient to measure service quality across different sectors. Third, it acknowledges the existence of service gaps between expected and perceived service delivery. Despite its wide acceptance, the model has faced criticism for not fully capturing the complexity of service delivery across all industries and for its reliance on the disconfirmation expectation approach, which may not always represent client perceptions accurately. Nevertheless, the SERVQUAL model has been successfully applied in many sectors, including government services (Sann et al., 2023), as it effectively explains client satisfaction and perceived service quality in contexts such as vehicle maintenance and repair.

In this study, the SERVQUAL model is applied to assess service quality at the Tanzania Electrical, Mechanical and Electronics Services Agency (TEMESA) in relation to client satisfaction. Since TEMESA operates under a monopolistic framework that restricts clients to its services, the model helps in examining how clients perceive service quality and what factors influence their satisfaction. The analysis focuses on the five SERVQUAL dimensions in connection with TEMESA's facilities, equipment, and staff performance. This model is particularly suitable for the study as it aligns with all the specific objectives and provides a comprehensive framework for evaluating government fleet maintenance services.



Figure 1: SERVQUAL model

Source: Parasuraman, Zeithaml, and Berry (1985)

Empirical Literature Review

Tangibility of Fleet Maintenance Service and Client Satisfaction

Nyabundi et al. (2021) examined the effect of tangibility on customer satisfaction among microfinance bank clients in Kisumu City, Kenya, using a correlation research design and quantitative approach. From a sample of 370 respondents, data were collected through questionnaires and analyzed using descriptive and regression techniques. The results showed that tangibility had a positive and significant influence on customer satisfaction, explaining 63.1% of its variation, leading to the conclusion that tangible aspects of service quality are essential in microfinance institutions. Similarly, Alblooshi et al. (2023) investigated public satisfaction with e-government services in the UAE, focusing on tangibility, information awareness, and service quality dimensions. Using a quantitative approach and data from 364 respondents analyzed through SEM modeling, the study found that citizens' satisfaction was directly linked to these dimensions, as well as to trust in government services. However, this study was limited to e-government services, which differ from fleet maintenance contexts. Likewise, Taufiqurokhman et al. (2025) assessed the impact of e-government service quality measured through ease of use, speed, and responsiveness on public trust and satisfaction using a quantitative approach with 262 respondents. Data analyzed through PLS4 regression revealed a positive and significant effect of e-service quality on public satisfaction, despite challenges such as unstable networks and accessibility issues. While these studies highlight the importance of service quality in enhancing satisfaction, they are contextually limited to financial and e-government services; thus, the current study addresses this gap by examining how service quality, particularly tangibility, influences satisfaction in government fleet maintenance services.

Reliability of Fleet Maintenance Service and Client Satisfaction

Rizkina and Zakaria (2025) investigated the effect of reliability on customer satisfaction and loyalty at the Hendrikus Tax Consulting Office in Jayapura, Indonesia, using a descriptive survey design and quantitative approach. Data were collected from 97 respondents through purposive sampling and analyzed using Smart Partial Least Squares (PLS). The findings revealed that reliability had a positive and significant influence on both customer satisfaction and loyalty, leading to the conclusion that enhancing reliability strengthens service quality and client retention in tax consultancy. Similarly, Kobeto and Swallehe (2022) examined the effects of service quality specifically reliability on customer satisfaction among 1,004 students at the Tanzania Institute of Accounting (TIA). Using a quantitative case design, the study found mixed results, with most service quality

elements scoring negatively; however, reliability received a relatively positive evaluation, showing that students were somewhat satisfied with dependable services. Despite this, overall satisfaction with institutional services was low, making the results contextually different from fleet maintenance services. Furthermore, Zaazou and Hamdy (2025) conducted a study in Egypt on measuring public service quality and achieving customer satisfaction using a mathematical model and secondary data. The analysis showed that while service quality and trust scored high, service delivery timing and satisfaction levels were relatively low. The study concluded that public satisfaction was strongly linked to trust in timely service provision, highlighting reliability as a crucial factor in service quality. However, as this study focused on general public services, its findings may not directly apply to fleet maintenance contexts.

Responsiveness of Fleet Management Service and Client Satisfaction

Responsiveness has been widely recognized as a key determinant of customer satisfaction across various service industries. Syela and Facrura (2025) explored this relationship in the culinary business sector in Taman using a descriptive research design and quantitative approach. From a sample of 100 respondents selected through simple random sampling, data were collected via questionnaires and analyzed using multiple regression, partial t-tests, and F-tests. The results showed that responsiveness had a positive and significant effect on customer satisfaction, leading to the conclusion that timely and attentive service delivery enhances client experiences. The study recommended improving responsiveness to align with customer expectations; however, it focused on food-related services, which limits its relevance to fleet maintenance contexts. Similarly, Obaid and Ahmadb (2021) analyzed factors influencing public satisfaction with government services in Nepal through a longitudinal design using secondary data from 2017–2018. Their logistic regression results indicated that service responsiveness, compliance, promptness, and self-service positively influenced public satisfaction, while bribery had negative effects. Despite its valuable insights, the study's focus on citizen-based services makes it less applicable to institutional service providers such as fleet maintenance agencies. Likewise, Nworah (2020) investigated e-service quality and user satisfaction with Nigeria's e-government service portal using a quantitative survey approach with 350 respondents. Findings revealed that e-service responsiveness significantly improved users' trust and satisfaction, encouraging greater public utilization of government portals. Although the study highlights the importance of responsiveness in building satisfaction and trust, its digital service context differs from the operational nature of fleet maintenance services.

Assurance of Fleet Maintenance Service and Client Satisfaction

This study builds on previous research that explored how service quality influences customer satisfaction in different sectors. Chege (2022) examined how service assurance affects customer satisfaction in Kenya's insurance industry using a descriptive cross-sectional design and quantitative analysis. The findings showed that reliability and assurance positively influence customer satisfaction, though the study focused on insurance services rather than vehicle maintenance. Sofyani et al. (2022) studied how IT compliance improves service quality, accountability, and transparency in Indonesia's e-governance using PLS-SEM analysis. Their findings revealed that IT governance enhances the quality of public services but lacked focus on fleet management services. Alkrajji and Ameen (2022) investigated the role of service quality, trust, and satisfaction in influencing young citizens' loyalty to Saudi Arabia's e-government services. Their results showed that assurance and trust strongly increased user loyalty, while satisfaction had a smaller effect. However, their study focused only on individual users in online services. Therefore, the current study fills these gaps by focusing on how service assurance and quality influence client satisfaction in government fleet maintenance agencies.

Empathy of Fleet Maintenance Service on Client Satisfaction

This study is informed by previous research that examined the influence of empathy and other service quality dimensions on satisfaction in different contexts. Pazer (2025) investigated the role of empathy in social work and its effect on job satisfaction and perceived client success using a descriptive survey design and quantitative analysis. The study found that empathy positively correlates with job satisfaction and client success, though it focused on social workers rather than clients in maintenance services. Assefa et al. (2025) evaluated how quality public service delivery, particularly empathy and assurance, affects customer satisfaction in Ethiopia's police administration. Their findings revealed low satisfaction levels due to a lack of empathy, responsiveness, and tangibility in police services, indicating the need for improved public engagement. However, the study's focus on police services limits its relevance to vehicle maintenance contexts. Septa et al. (2025) examined how service quality dimensions including assurance, empathy, reliability, responsiveness, and tangibility affect satisfaction in an academic fair unit. The study found that all SERVQUAL dimensions positively influence satisfaction, with empathy being the most significant factor enhancing clients' sense of value. Despite this, the study was limited to personalized student services. Therefore, the current study addresses

these contextual gaps by examining how empathy influences client satisfaction in government fleet maintenance services.

Conceptual Framework

Conceptual framework depicts the relationship between independent and dependent variables in cause and effects relationship. In this study, independent variables included SERVQUAL dimensions whereas the dependent was Client Satisfaction as shown in Figure 2.

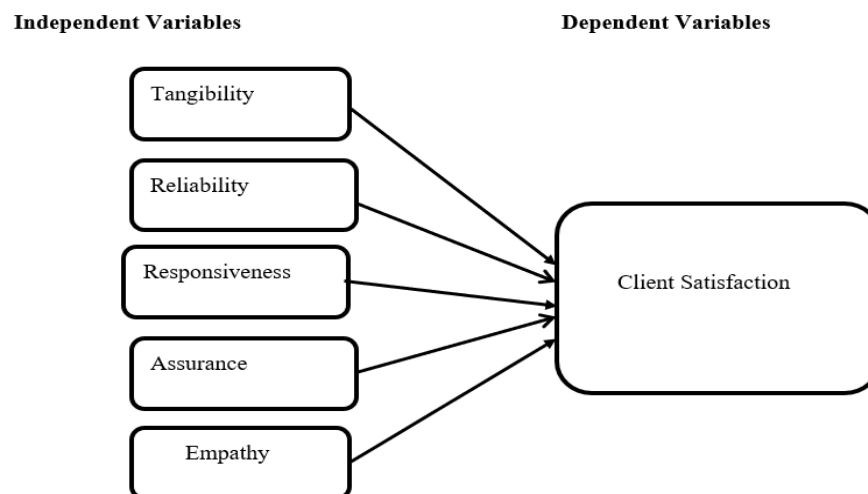


Figure 2: Conceptual Framework
Source: Modified from Septa et al. (2024)

The relationship between service quality dimensions and client satisfaction has been widely examined using the SERVQUAL model. Tangibility, which includes the physical facilities, equipment, and appearance of staff, shapes first impressions and influences satisfaction through visual and physical cues (Nyabundi et al., 2021; Alblooshi et al., 2023). Reliability, defined as the ability to deliver promised services consistently and accurately, strongly predicts satisfaction since clients' value dependable service delivery (Rizkina & Zakaria, 2025; Kobeto & Swallehe, 2022). Responsiveness, or the willingness to assist clients and provide timely service, directly improves satisfaction by showing respect for clients' time and needs (Syela & Facrura, 2025; Nworah, 2020). Similarly, assurance, which reflects staff competence, courtesy, and ability to instill trust, reduces uncertainty and builds confidence in services, thus increasing satisfaction levels (Chege, 2022; Alkrajji & Ameen, 2022). Empathy, the provision of individualized care and attention, further enhances satisfaction by making clients feel valued and understood (Pazer, 2025; Septa et al., 2025). These five dimensions collectively shape client perceptions of service quality and determine satisfaction outcomes. Empirical studies show that weaknesses in any of these areas can reduce satisfaction, while improvements across dimensions lead to higher client loyalty and positive word-of-mouth (Zaazou & Hamdy, 2025; Assefa et al., 2025). Therefore, tangibility, reliability, responsiveness, assurance, and empathy are key determinants of client satisfaction, with each variable playing a complementary role in the overall evaluation of services.

III.METHOD

This study adopted the positivist research philosophy to guide the process of data collection, analysis, and interpretation. Positivism was suitable because it emphasizes objective measurement and the use of quantitative data to explain relationships between variables (Sanya, 2021). Through this philosophy, the study sought to determine the extent to which predictor variables influenced client satisfaction within the context of government fleet maintenance services. The positivist perspective enabled the research to remain empirical and evidence-based, ensuring that findings were derived from observable data rather than subjective interpretation.

A deductive research approach was employed to test theoretical assumptions and hypotheses concerning the relationship between government fleet maintenance service quality and client satisfaction. According to Kennedy and Thornberg (2018), a deductive approach moves from general theories to specific observations, allowing researchers to test whether theoretical propositions hold true in a given context. This approach was appropriate for this study because it provided a structured method to verify or reject hypotheses derived from existing service quality theories. It also facilitated systematic analysis of how various dimensions of service quality such as reliability, responsiveness, assurance, and empathy interacted with client satisfaction.

The study applied a cross-sectional research design to collect data from the study area at a single point in time (Creswell & Creswell, 2017). This design was chosen because it allowed the researcher to examine the current state of client satisfaction with government fleet maintenance services efficiently and cost-effectively. The study was conducted in Dar es Salaam region, Tanzania's commercial hub and the centre for public vehicle fleet maintenance operations. The target population included 205 staff members from the logistics departments of three government entities TRA, NHIF, and TANESCO all clients of TEMESA. From this population, a sample size of 134 respondents was determined using a standard formula with an estimated proportion ($p = 0.5$), ensuring sufficient representativeness and reliability of the findings. The study determined the sample size using the formula,

$$n = \frac{N \cdot Z^2 \cdot p \cdot (1 - p)}{(N - 1) \cdot E^2 + Z^2 \cdot p \cdot (1 - p)}$$

Where: n = sample size,

N = target population (205),

Z = z-score (depends on confidence level: 1.96 for 95%),

p = estimated proportion ($p=0.5$), since the estimated proportion is unknown

E = margin of error (0.05)

The study used stratified and simple random sampling to ensure fair representation of respondents from three key government institutions TANESCO, TRA, and NHIF each chosen for their large vehicle fleets and frequent use of TEMESA maintenance services. Stratified sampling helped capture variations across institutions, while simple random sampling ensured all staff in logistics and transport departments had an equal chance to participate, reducing bias and enhancing reliability. Data were collected through a structured questionnaire using a 5-point Likert scale, designed to gather quantitative information about perceptions of government fleet maintenance service quality and client satisfaction. Data analysis was performed using SPSS, involving descriptive statistics for summaries and multiple regression analysis to determine the relationship between service quality dimensions and client satisfaction. The model's assumptions normality, multicollinearity, homoscedasticity, and autocorrelation were tested, while validity was ensured through a pilot study and reliability through Cronbach's alpha ($\alpha \geq 0.7$). The regression model of the study was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Where by

Y = Client Satisfaction, β_0 = Constant factor

X_1 = Tangibility

X_2 = Reliability

X_3 = Responsiveness

X_4 = Assurance

X_5 = Empathy

e = Error term

IV. RESULT AND DISCUSSION

Thus, the mean score obtained from Likert-scale responses is used to show the overall level of agreement or perception toward each statement. In a 5-point Likert scale, the range of mean values is typically interpreted as follows:

Table 1: 5-point Likert scale mean range

Mean Range	Interpretation
1.00 – 1.80	Strongly Disagree
1.81 – 2.60	Disagree
2.61 – 3.40	Neutral
3.41 – 4.20	Agree
4.21 – 5.00	Strongly Agree

Source: Joshi et al. (2015)

Tangibility of Fleet Maintenance and Client Satisfaction

The results in Table 1 show how respondents rated the effect of tangibility on satisfaction with fleet maintenance services. The most influential factor was that TEMESA has up-to-date equipment and facilities, with a high mean score of 4.758 and a low standard deviation of 0.8010, meaning most respondents agreed that modern facilities increase satisfaction. The least influential factor was the availability of sufficient spare parts, which had a mean of 4.422 and a higher standard deviation of 1.1406, showing mixed opinions among respondents. The overall mean score of 4.564 indicates that respondents generally had a moderate to positive view that tangibility affects satisfaction, though the relatively high standard deviation (1.0021) suggests differences in opinions. In summary, most respondents agreed that tangible aspects like equipment and spare parts moderately influence client satisfaction with fleet maintenance services at TEMESA.

Table 2: Tangibility of Fleet Maintenance and Client Satisfaction

Statements	N	Mean	Std. Deviation
The agency employees dressed well and appear neat	128	4.719	.8779
The agency physical facilities have visual appealing	128	4.398	1.1795
The agency has up-to-date equipment and facilities	128	4.758	.8010
The appearance of physical facilities matches with service provided	128	4.523	1.0115
The agency has sufficient spare parts for service delivery	128	4.422	1.1406
Average values		4.564	1.0021

Source: Field Data, 2025

Reliability of Fleet Maintenance and Client Satisfaction

The results in Table 3 show the mean scores and variations used to measure the influence of reliability on satisfaction with fleet maintenance services. The most influential aspect of reliability was that the agency fulfills its promises on time, with a high mean score of 4.781 and a low standard deviation of 0.7311, indicating strong agreement among respondents that the agency is dependable, leading to higher satisfaction. The least influential aspect was the agency's provision of services at the promised time, which had a mean of 4.484 and a standard deviation of 1.0271, suggesting moderate agreement and some variation in views. The overall mean for service reliability was 4.6452, reflecting a moderately positive perception that TEMESA's services meet client expectations. The relatively high standard deviation (0.8960) indicates differences in respondents' opinions, meaning some viewed reliability as highly influential while others perceived less impact. Overall, reliability was found to have a moderate influence on client satisfaction with fleet maintenance services.

Table 3: Responsiveness of Fleet Maintenance and Client Satisfaction

Statements	N	Mean	Std. Deviation
The agency tells customers exactly when service will be performed	128	4.734	.7683
The agency employees provide prompt service expected by client	128	4.594	.9087
The agency employees always willing to help clients	128	4.711	.8244
The agency employees are always available to respond to client requests promptly	128	4.414	1.1606
The agency quickly informs me regarding the faults in the vehicle	128	4.266	1.1738
Average values	128	4.5438	0.96716

Source: Field Data, 2025

Responsiveness of Fleet Maintenance and Client Satisfaction

The results in Table 4. show the mean scores and variations used to assess the influence of responsiveness on satisfaction with fleet maintenance services. The most influential factor was that the agency informs customers exactly when the service will be performed, which had a high mean score of 4.734 and a low standard deviation of 0.7683, indicating strong agreement among respondents that timely communication enhances satisfaction at TEMESA. The least influential factor was that the agency quickly informs clients about vehicle faults, with a mean score of 4.266 and a higher standard deviation of 1.1738, suggesting moderate agreement and more varied responses. The overall mean score for responsiveness was 4.5438, indicating a moderately positive perception that responsiveness contributes to satisfaction with fleet maintenance services. The relatively high standard deviation (0.9672) implies notable variation in opinions, showing that while some respondents viewed responsiveness as highly influential, others considered its effect to be lower. Overall, responsiveness was found to have a moderate influence on client satisfaction with fleet maintenance services at TEMESA.

Table 4: Responsiveness of Fleet Maintenance and Client Satisfaction

Statements	N	Mean	Std. Deviation
The agency tells customers exactly when service will be performed	128	4.734	.7683
The agency employees provide prompt service expected by client	128	4.594	.9087
The agency employees always willing to help clients	128	4.711	.8244
The agency employees are always available to respond to client requests promptly	128	4.414	1.1606
The agency quickly informs me regarding the faults in the vehicle	128	4.266	1.1738
Average values	128	4.5438	0.96716

Source: Field Data, 2025

Assurance of Fleet Maintenance and Client Satisfaction

The results in Table 5 show the mean scores and variations used to assess the influence of assurance on satisfaction with fleet maintenance services. The most influential aspect was that agency employees are always polite, with a high mean score of 4.7734 and a low standard deviation of 0.71226, indicating strong agreement among respondents that politeness enhances assurance and satisfaction. The least influential aspect was respondents' personal trust in agency employees, which had a mean of 4.4922 and a higher standard deviation of 0.99602, suggesting moderate trust and greater variation in opinions. The overall mean for assurance was 4.6609, showing a moderate and slightly positive perception that assurance contributes to satisfaction with fleet maintenance services. The relatively high standard deviation (0.8284) indicates noticeable differences in responses, implying that while some respondents viewed assurance as highly influential, others perceived a lower impact. Overall, assurance was found to have a moderate effect on client satisfaction with fleet maintenance services at TEMESA.

Table 5: Assurance of Fleet Maintenance and Client Satisfaction

Statement	N	Mean	Std. Deviation
The agency employees are committed for timely services	128	4.7422	.78616
The employees of the agency are always polite	128	4.7734	.71226
I feel safe in transaction with the agency employees	128	4.6406	.82035
The agency provides adequate support to its employees to do their jobs well	128	4.4922	.99602

I personally trust the agency employees for their services	128	4.6563	.82708
Average values		4.66094	0.828374

Source: Field Data, 2025

Empathy of Fleet Maintenance and Client Satisfaction

The results in Table 6 show the mean scores and variations used to assess the influence of empathy on satisfaction with fleet maintenance services. The most influential aspect was that agency employees give clients personal attention, with a mean score of 4.6172 and a low standard deviation of 0.68873, indicating strong agreement that personalized attention enhances satisfaction at TEMESA. The least influential aspect was that the agency prioritizes clients' best interests, which had a mean score of 4.3984 and a higher standard deviation of 0.96669, suggesting moderate agreement and varied opinions among respondents. The overall mean for empathy was 4.4562, reflecting a moderately positive perception that empathy contributes to satisfaction with fleet maintenance services. The relatively high standard deviation (0.9317) indicates some variation in responses, showing that while some respondents viewed empathy as highly influential, others perceived less impact. Overall, empathy was found to have a moderate effect on client satisfaction with fleet maintenance services at TEMESA.

Table 6: Empathy of Fleet Maintenance and Client Satisfaction

Statements	N	Mean	Std. Deviation
I expect the agency to give clients individual attention	128	4.4297	1.08449
I expect the agency employees to give clients personal attention	128	4.6172	.68873
I expected the agency employees to know the need of clients	128	4.4062	.91735
I expect the agency to prioritize clients' best interests	128	4.3984	.96669
I expected the agency to have operating hours convenient to all clients	128	4.4297	1.00144
Average values		4.45624	0.93174

Source: Field Data, 2025

Correlation analysis

In this study, a Pearson correlation analysis was performed to evaluate the relationships between the five service quality dimensions namely; Tangibility, Responsiveness, Reliability, Assurance, and Empathy and client satisfaction with fleet maintenance service at TEMESA. The strength and direction of the relationships are reflected in the correlation coefficients (r), where values range from -1 to +1. In this range, positive coefficients indicate a direct relationship, while negative coefficients suggest an inverse relationship. The analysis was intended to understand how the independent variables relate with the dependent variable that helps to show which predictor dimension is in the line or against the satisfaction dimension. The p -values presented in this study were directly generated through Pearson correlation analysis using statistical software (SPSS), where the significance test evaluates the probability that the observed correlation occurred by chance.

The results in Table 7 show that tangibility, responsiveness, and reliability have a strong positive and significant relationship with client satisfaction at TEMESA, meaning that better facilities, quick responses, and reliable services increase clients' satisfaction. Tangibility had the highest correlation ($r = 0.585$, $p = 0.000$), followed closely by reliability ($r = 0.583$, $p = 0.000$) and responsiveness ($r = 0.576$, $p = 0.000$). However, assurance showed a weak negative and insignificant relationship ($r = -0.053$, $p = 0.555$), and empathy had a weak positive but insignificant effect ($r = 0.065$, $p = 0.467$). This means that while physical appearance, prompt service, and dependability strongly improve satisfaction, factors such as politeness, trust, and personal attention have little or no significant influence.

Table 7: Correlation Matrix

		1	2	3	4	5
1	Tangibility	1				
2	Responsiveness	.478**	1			
3	Reliability	.489**	.543**	1		
4	Assurance	.005	.112	-.027	1	
5	Empathy	.099	.015	.058	-.128	1
6	Satisfaction	.585**(.000)	.576**(.000)	.583**(.000)	-.053(.555)	.065(.467)

Source: Field Data, 2025

Model Summary

The results show that the SERVQUAL dimensions tangibility, reliability, responsiveness, assurance, and empathy have a strong positive relationship with client satisfaction for TEMESA fleet maintenance, with an R value of 0.716. The R-squared value of 0.513 indicates that these factors explain 51.3% of the variation in satisfaction, while the remaining 48.7% influenced by other factors. Overall, the model moderately explains client satisfaction, with a standard error of 0.452, suggesting reasonable prediction accuracy.

Table 8: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.716 ^a	.513	.493	.45219

Source: Field Data, 2025

Regression coefficient

The regression coefficients developed from multiple regression analysis provides specific contribution of each predictor variable (tangibility, reliability, responsiveness, assurance and empathy) on the independent variable, notably client satisfaction. The regression analysis aimed to analyze the influence of government fleet maintenance service quality on client satisfaction at TEMESA. In this analysis the study focused on various indicators including unstandardized coefficient (β) and significant coefficient, Sig. (p-value). According to analysis, significant coefficient ($p < 0.05$) implies that the relationship meaningful. The table presents the results of a multiple regression analysis.

Table 9: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.621	.512		3.168	.002
	Reliability	.243	.059	.316	4.155	.000
	Tangibility	.265	.074	.287	3.604	.000
	Responsiveness	.236	.069	.271	3.407	.001
	Assurance	-.071	.058	-.078	-1.216	.226
	Empathy	.004	.069	.004	.058	.954

a. Dependent Variable: Satisfaction

Tangibility of Fleet Maintenance Service and Client Satisfaction

The study found that tangibility of fleet maintenance services at TEMESA positively influences client satisfaction. Descriptive results showed a mean score of 4.564, indicating a moderate perception among clients. Regression results revealed a coefficient β of 0.265 and a p-value of 0.000, confirming a positive and statistically significant relationship, which supports the acceptance of the null hypothesis that tangibility affects satisfaction. The findings indicate that modern equipment, well-maintained facilities, and professional employee appearance contribute to clients' perceptions of service quality. However, clients at TEMESA do not perceive these factors as highly critical, despite their positive influence (Nyabundi et al., 2021; Alblooshi et al., 2023). Consistency between the physical environment and the actual service provided is essential. Discrepancies

between well-equipped facilities and service outcomes can reduce client trust and satisfaction (Taufiqurokhman et al., 2025). The availability of sufficient spare parts also directly impacts service efficiency and client satisfaction. Effective inventory management is crucial to prevent service delays and maintain fleet readiness (Nyabundi et al., 2021). General, tangibility including facilities, equipment, and employee appearance plays a significant but moderate role in shaping client satisfaction at TEMESA, consistent with the SERVQUAL framework.

Reliability of Fleet Maintenance Service and Client Satisfaction

The study found that the reliability of government fleet maintenance services at TEMESA positively and significantly influences client satisfaction. Descriptive results showed an average mean of 4.6452, indicating a moderate positive perception that TEMESA meets client expectations. Regression analysis revealed a coefficient β of 0.243 and a p-value of 0.000, confirming a positive and statistically significant relationship, supporting the acceptance of the null hypothesis that reliability affects client satisfaction. Ensuring services are dependable and accurately performed the first time is critical to enhancing client satisfaction.

The findings indicate that TEMESA consistently fulfills its service promises within specified timeframes, which strengthens client satisfaction. Timely completion of vehicle maintenance services is essential for clients who rely on uninterrupted fleet operations. This is consistent with the SERVQUAL framework, where reliability is a key dimension, and is supported by Rizkina and Zakaria (2025), who argued that reliability significantly contributes to client satisfaction and loyalty. The use of modern scheduling systems and real-time tracking enhances adherence to service timelines, reinforcing trust and accountability.

Moreover, TEMESA demonstrates empathy by reassuring clients during service disruptions. The ability to respond empathetically enhances the perception of service reliability and commitment. Clients value both technical resolution and emotional reassurance during delays or technical issues. Implementing real-time customer support platforms can further address service inadequacies effectively (Zaazou & Hamdy, 2025). Responding sympathetically to client concerns promotes a client-centered approach and demonstrates staff competence and emotional intelligence. The study also established that TEMESA's fleet maintenance services are consistently dependable, providing accurate, timely, and consistent service without failures or delays. Clients value the agency for maintaining vehicles effectively and returning them in operational condition. The availability of technological tools, such as predictive maintenance systems and quality control protocols, supports service dependability (Kobeto & Swallehe, 2022). These mechanisms prevent unexpected failures, enhance service consistency, and strengthen the agency's reputation.

Furthermore, TEMESA maintains punctual service delivery, which is crucial for clients whose operations depend on reliable vehicle availability. Scheduling appointments reduces fleet downtime and improves productivity. This aligns with Rizkina and Zakaria (2025), who emphasized that timely service delivery enhances customer loyalty and satisfaction. Modern fleet management tools, including digital scheduling and performance monitoring, help ensure services meet client expectations, linking reliability to trustworthiness and operational efficiency.

Lastly, TEMESA maintains accurate and up-to-date client records, contributing significantly to overall service reliability. Detailed documentation of service history, vehicle diagnostics, and customer preferences enables personalized service, reduces operational errors, and facilitates seamless coordination across service units. Accurate record-keeping supports transparency and accountability, reinforcing the agency's image as a dependable service provider (Zaazou & Hamdy, 2025) and enhancing client satisfaction and institutional credibility.

Responsiveness of Fleet Management Service and Client Satisfaction

The study found that the responsiveness of TEMESA employees positively and significantly influences client satisfaction with government fleet maintenance services. Descriptive results showed an average mean of 4.5438, indicating a neutral to slightly positive perception of responsiveness among clients. Regression analysis revealed a coefficient β of 0.236 and a p-value of 0.001, confirming a positive and statistically significant relationship, which supports the acceptance of the null hypothesis that responsiveness affects client satisfaction. Prompt service delivery and employees' willingness to assist clients were found to significantly enhance satisfaction levels.

The findings indicate that TEMESA provides clients with precise information about when fleet maintenance services will be performed, aligning with the responsiveness dimension of the SERVQUAL model. Timely and accurate communication helps manage client expectations, reduces ambiguity, and fosters trust and service reliability (Syela & Facrureza, 2025). Employees deliver prompt services using smart technologies, including automated scheduling, digital maintenance logs, and real-time notifications, which help minimize fleet

downtime and enhance operational continuity. The agency's ability to respond efficiently to client demands strengthens trust and reinforces its reputation (Obaid & Ahmadb, 2021).

Additionally, TEMESA employees demonstrate a strong willingness to support clients, particularly in time-sensitive situations, promoting proactive and helpful behavior that enhances satisfaction and trust (Nworah, 2020). However, occasional delays caused by workload pressures and bureaucratic processes may reduce responsiveness and negatively impact client satisfaction (Obaid & Ahmadb, 2021). The agency quickly notifies clients of vehicle faults, reflecting technical competence and responsive communication, and the adoption of modern technologies such as sensors and diagnostic systems can further improve service efficiency. Inclusive, TEMESA's responsiveness demonstrates a client-centered approach that improves operational efficiency and client satisfaction.

Assurance of Fleet Maintenance Service and Client Satisfaction

The study found that the assurance of government fleet maintenance services at TEMESA positively but insignificantly influences client satisfaction. Descriptive results showed an average mean of 4.66094, indicating a neutral to slightly positive perception of assurance. Regression results revealed a coefficient β of -0.071 and a p-value of 0.226, confirming a negative and statistically insignificant relationship, leading to the rejection of the null hypothesis that assurance positively affects client satisfaction. This suggests that the confidence and courtesy of staff do not have a significant effect on improving service satisfaction at TEMESA.

The findings indicate that clients generally trust TEMESA employees' competence and courtesy, reflecting the assurance dimension of the SERVQUAL model. Trust is critical as clients rely on the agency to maintain vehicles essential for daily operations, and consistent service by skilled employees helps build loyalty over time (Chege, 2022). Clients also feel safe using secure digital platforms, transparent invoicing, and well-documented service procedures, which enhance confidence in service delivery (Sofyani et al., 2022). Politeness and professional courtesy from employees further contribute to client perceptions of reliability and competence, reinforcing trust and fostering a positive service environment (Chege, 2022).

Moreover, the study found that internal support for TEMESA employees, such as training, modern equipment, and wellbeing measures, strengthens their ability to deliver assured services, indirectly improving client satisfaction. A moderately adopted customer-centered approach, supported by digital tools like real-time vehicle tracking and automated feedback systems, enhances service personalization and engagement. This approach fosters confidence in the agency's commitment to professionalism, accountability, and high-quality service, even though the direct statistical effect of assurance on satisfaction remains insignificant (Alkrajji & Ameen, 2022; Chege, 2022).

Empathy of Fleet Maintenance Service on Client Satisfaction

The study found that empathy of TEMESA employees negatively but insignificantly influences client satisfaction with fleet maintenance services. Descriptive results showed an average mean of 4.45624, indicating a neutral to slightly positive perception of empathy. Regression analysis revealed a coefficient β of 0.004 and a p-value of 0.954, confirming a positive but statistically insignificant relationship, leading to the rejection of the null hypothesis that empathy affects client satisfaction. This suggests that showing personal attention and care to clients does not have a significant impact on their satisfaction at TEMESA.

Clients expect TEMESA employees to provide individualized attention, particularly because government institutions have unique vehicle specifications and operational schedules. Personalized service listening to client concerns, understanding specific vehicle problems, and offering effective solutions aligns with the empathy dimension of the SERVQUAL model and can foster trust and loyalty (Septa et al., 2025; Pazer, 2025). The use of digital tools such as client profiling and service history tracking can help employees understand and meet client needs more effectively, enhancing satisfaction while supporting staff professional fulfillment (Pazer, 2025). Lack of empathy, as observed in other public service contexts, has been shown to cause dissatisfaction (Assefa et al., 2025), highlighting the importance of institutionalizing empathy through staff training and client-awareness initiatives.

The study also found that clients expect TEMESA to prioritize their best interests, provide timely repairs, ensure cost transparency, and minimize vehicle downtime. Flexibility in operating hours is another aspect of empathetic service delivery, allowing the agency to adapt to client needs and operational demands (Septa et al., 2025). Incorporating technology into scheduling and service delivery can enhance accessibility and responsiveness, reflecting a client-centered approach. Although empathy was not statistically significant in this study, the findings suggest that understanding client needs, prioritizing their interests, and offering flexible services can still positively influence perceptions of service quality, trust, and satisfaction.

CONCLUSIONS

The study concludes that the five SERVQUAL dimensions empathy, assurance, reliability, responsiveness, and tangibles each play an essential role in shaping client satisfaction at TEMESA. Empathy was found to have limited statistical influence, but clients still value personalized attention and feeling understood, emphasizing the need for staff to show care and concern. Assurance, related to staff competence, professionalism, and client trust, also influences satisfaction, highlighting the importance of respectful behavior, secure processes, and transparent service delivery. Reliability and responsiveness were shown to be essential for clients who depend on timely, accurate, and consistent vehicle maintenance services. Tangibles, including well-maintained facilities, tools, and staff appearance, contribute to clients' overall perception of service quality. The study emphasizes that improving satisfaction requires a balanced focus on all these dimensions, with particular attention to trust-building and client-centered approaches, supported by technology and ongoing staff development.

Based on the findings, the study recommends practical measures for TEMESA to enhance service quality. These include regular staff training on empathy, communication, and customer care; implementing feedback mechanisms to guide performance improvements; adopting predictive maintenance and digital tools to improve reliability and responsiveness; and upgrading physical facilities and staff presentation to enhance tangibles. Additionally, extending operating hours, introducing shift systems, and appointment-based services can better meet client needs. For future research, the study suggests comparative analysis with private fleet maintenance providers, examining the influence of digital innovations like AI on client satisfaction, and exploring the relationship between service quality and cost-efficiency in public fleet maintenance. These recommendations and research areas aim to strengthen service delivery, client satisfaction, and overall public trust in government fleet maintenance services.

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