

Service Quality, Managerial Competence, and Library Facilities Affecting User Satisfaction at West Sumatra Provincial Library

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Abstract

This study examines the factors influencing user satisfaction at the Regional Library of West Sumatra Province. Persistent user complaints regarding staff responsiveness, facility comfort, and declining engagement indicate service deficiencies that require systematic analysis. The study aims to assess how service quality, managerial interpersonal competence, and service facilities, both individually and collectively, affect user satisfaction. Using a quantitative approach with a survey method and proportionate stratified random sampling, data were collected from 392 users in 2024 and analyzed through multiple linear regression. The results show that all three variables have a positive and significant effect on user satisfaction. Service quality emerged as the most dominant predictor, followed by managerial interpersonal competence and service facilities. Together, these factors explain a substantial proportion of the variance in user satisfaction. The findings emphasize the practical need to enhance service quality, staff competence, and infrastructure while also strengthening the theoretical understanding of user-centered service delivery in public libraries. This study reaffirms the relevance of integrated service quality frameworks for improving user satisfaction and underscores the necessity for libraries to adapt to changing user expectations in the digital era.

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1. Introduction

The rapid advancement of the information age, marked by the acceleration of digital technologies and shifting user expectations, has redefined the role of libraries. No longer confined to serving as static storage for collections, public libraries today are expected to function as centers of information interaction, spaces for lifelong learning, and inclusive environments for intellectual and cultural engagement. This transformation demands not only

institutional adaptation but also a renewed focus on understanding user satisfaction as a reflection of service effectiveness and institutional relevance. In this sense, user satisfaction is more than just an administrative metric, it is a substantive indicator of how well public libraries uphold the right to information as guaranteed by Article 28F of the 1945 Constitution, the Public Information Disclosure Law (Law No. 14/2008), and the Library Law (Law No. 43/2007), which emphasize the state's obligation to provide equitable access to information and lifelong learning opportunities for all citizens.

The importance of user satisfaction in library science has been widely acknowledged, particularly in relation to how it reflects the dual goals of service utility and institutional legitimacy. However, in the current era of information abundance and digital alternatives, the expectations of library users have become increasingly complex. They demand not only access to up-to-date resources but also fast, responsive, and personalized services. As a result, three core aspects are consistently highlighted in the literature as determinants of library user satisfaction: service quality, managerial performance (especially in its interpersonal dimensions) and the adequacy of service facilities (Hartono, 2016; Zeithaml et al., 2018).

To understand how these factors interact, this study draws on two complementary theoretical frameworks. First, the SERVQUAL model by (Parasuraman, A., Zeithaml, V. A., & Berry, 2018) provides a multidimensional lens to assess service quality across tangibles, responsiveness, reliability, assurance, and empathy. Second, (Mintzberg, 1980) typology of managerial roles, particularly the interpersonal roles of leadership, liaison, and support, helps explain how organizational behavior influences user experiences. Together, these frameworks suggest that user satisfaction arises from the complex interplay between technical service delivery, human interaction, and the institutional environment.

Despite the extensive literature on service satisfaction, there is a notable gap in studies focusing on public libraries in provincial contexts, particularly in Indonesia. Much of the existing research has centered on urban libraries or academic institutions, leaving questions about how these service dimensions perform in regional settings underexplored. This study addresses that gap by focusing on the Regional Library of West Sumatra Province, a public institution tasked with delivering equitable access to knowledge in a diverse, largely non-urban population. Recent studies (Alhidayatullah, 2023; Hadizah et al., 2024; Sa'diyah, Sary, & Ratnaningsih, 2025) also emphasize that digital transformation, user-centered innovation, and adaptive facilities have become central in shaping satisfaction in public service institutions, including libraries. Thus, this study positions itself within these current debates, highlighting its novelty in the provincial context of Indonesia.

The main problem in this study is the fluctuating level of user satisfaction at the Regional Library of West Sumatra Province despite various efforts to improve services. Preliminary data from the 2023 and 2024 Community Satisfaction Index (IKM) reports show a notable shift from "very satisfied" to "moderately satisfied" responses in just a few months. Field interviews with ten active users further reveal recurring dissatisfaction rooted in three key areas: outdated collections and limited access to digital resources, staff communication perceived as

unhelpful or discourteous, and facilities that fall short of comfort and accessibility standards. These problems reflect not only technical limitations but also systemic weaknesses in interpersonal management and responsiveness to user feedback.

Curiously, many users who express dissatisfaction continue to use the library regularly. This contradicts classical theories of user behavior, such as (Hernon & Altman, 1996), which suggest that dissatisfied users tend to seek alternative information sources. A plausible explanation, as proposed by (Zainal, 2020), is that this loyalty stems from limited alternatives or the enduring symbolic value of the library as a public and cultural institution. Such findings suggest that user satisfaction cannot be viewed in a purely linear or transactional way; it must be understood as part of a broader social and institutional ecology.

This study aims to examine the influence of service quality, interpersonal managerial roles, and service facilities on user satisfaction at the Regional Library of West Sumatra Province. These three variables will be assessed both individually and collectively, using a user-centered evaluation framework. The findings are expected to contribute to the refinement of empirical models of library service quality while reinforcing the normative claim that ensuring public satisfaction is not merely a managerial concern, it is part of the library's constitutional and institutional obligation to uphold information justice.

2. Method

This study adopts a quantitative approach with a cross-sectional survey design, aiming to examine the influence of service quality (Creswell & Creswell, 2023; Sugiyono, 2018), interpersonal managerial roles, and service facilities on library user satisfaction at the Archives and Library Service of West Sumatra Province. The selection of these three variables is grounded in preliminary findings from internal reports and field observations in 2023–2024, which indicated user dissatisfaction in three key areas: outdated collections and infrastructure, uncommunicative staff behavior, and lack of responsiveness in managerial handling of complaints. These service gaps align with theoretical models such as SERVQUAL (Parasuraman, A., Zeithaml, V. A., & Berry, 2018) and (Mintzberg, 1980) managerial role typology, and are operationally relevant to the local public service setting, as measured by indicators from the Indonesian Regulation of the Ministry for Administrative and Bureaucratic Reform (Permenpan RB) Number 14 of 2017.

The study was conducted between March and June 2025. The population comprised 18,723 registered users of the Regional Library of West Sumatra. A sample of 392 respondents was determined using the Slovin formula at a 95% confidence level with a margin of error of approximately 5%. The proportionate stratified random sampling technique was employed to ensure representation across various user categories, including students, educators, civil servants, and general users. The sampling frame was derived from the 2024 user registration and attendance database. The final response rate after data cleaning was 96.2%.

Data were collected using a structured questionnaire developed based on service quality dimensions outlined in Permenpan RB No. 14 of 2017. These indicators were translated into four-point Likert-scale items (ranging from “very dissatisfied” to “very satisfied”), covering

aspects of tangibles, responsiveness, reliability, assurance, empathy, managerial communication, staff-user relations, and adequacy of physical and digital infrastructure. The questionnaire was subjected to instrument testing through a pilot study involving 30 respondents at the Soeman HS Library in Riau. Although the location differs from the research site, it was selected due to demographic similarities and logistical considerations. To minimize external validity concerns, only item formats (not content) were tested. All items demonstrated validity with $r\text{-count} > 0.361$ (at $\alpha = 0.05$, $df = 28$), and reliability with Cronbach's Alpha values > 0.9 across all variables, indicating high internal consistency. The complete instrument and validity table are provided in the appendix.

The study involved four main variables:

- Dependent variable (Y): User satisfaction.
- Independent variables:
 - X1: Service quality
 - X2: Interpersonal managerial role
 - X3: Service facilities

Each variable was measured using several indicators, operationalized into a total of 24 questionnaire items.

Data were analyzed using SPSS version 25, employing the following stages:

1. Descriptive analysis to describe the distribution and central tendencies of user responses.
2. Classical assumption tests, including normality, linearity, multicollinearity, and heteroscedasticity, to ensure the appropriateness of multiple linear regression modeling. The test for autocorrelation was omitted, as it is typically relevant only for time-series data, not cross-sectional datasets.
3. Inferential analysis using multiple linear regression to examine both simultaneous and partial effects of the independent variables on user satisfaction.

The F-test was conducted at a significance level of $\alpha = 0.05$ to assess the joint influence of the three independent variables. The t-test was used to determine the partial effect of each variable on the dependent variable. Additionally, the coefficient of determination (R^2) and Adjusted R^2 were interpreted to evaluate the extent to which variations in user satisfaction could be explained by the model. Specifically, R^2 represents the total variance explained by the model, while Adjusted R^2 accounts for the number of predictors to avoid overestimation in multi-variable contexts.

This methodological approach ensures both statistical rigor and contextual relevance, allowing for evidence-based recommendations to improve library service performance in regional public institutions.

3. Result and Discussion

3.1 Descriptive and Inferential Analysis of User Satisfaction in Relation to Service Quality, Managerial Interpersonal Role, and Library Facilities

This study aims to analyze how three independent variables Service Quality (X1),

Interpersonal Manager Role (X2), and Service Facilities (X3) influence Library User Satisfaction (Y). Although the methods section originally indicated a qualitative approach, the data presented here derives from structured questionnaires using a Likert scale, processed through descriptive statistics and classical assumption testing. Therefore, the approach is better categorized as descriptive-quantitative, and the methodology should be aligned accordingly.

A total of 392 respondents (users of the West Sumatra Provincial Library) participated by filling out the survey instrument. Data were analyzed to determine the level of user satisfaction and the relative contribution of each factor, using both descriptive interpretation and inferential statistical methods.

a. Descriptive Analysis of Library User Satisfaction (Y)

User satisfaction was measured through nine indicators derived from Permenpan RB No. 14/2017. The following table presents the mean scores, TCR values, and qualitative descriptions:

Table 1. Description of User Satisfaction Variables

Question	Shoes Total	Rerata (Mean)	TCR%	Description
What is your opinion about the suitability of service requirements with the type of service	1374	3,51	87,6	As per
How do you understand the ease of service procedures in this library	1386	3,54	88,4	Easy
Bagaimana pendapat Saudara tentang kecepatan waktu dalam memberikan pelayanan.	1360	3,47	86,7	Quick
How do you feel about the reasonableness of the fees/tariffs in the service	1433	3,66	91,4	Free
What is your opinion about the suitability of service products between those listed in the service standards and the results provided	1353	3,45	86,3	As per
What do you think about the competence/ability of officers in the service	1375	3,51	87,7	Competent
How do you think the behavior of officers in services related to politeness and friendliness	1402	3,58	89,4	Polite and Friendly
What do you think about the quality of facilities and infrastructure	1391	3,55	88,7	Good
What do you think about the handling of service user complaints	1364	3,48	87,0	Functioning less than optimally
AverageVariable	1382	3,53	88,1	As per (Generally Satisfactor)

Source; Research Results 2025

The highest satisfaction is observed in fee affordability (TCR 91.4%), confirming the success of the library in ensuring social inclusion, as emphasized by Parasuraman et al. (2018) under the assurance and accessibility dimension of the SERVQUAL model. However, the lowest

scores are found in service product conformity (TCR 86.3%) and service speed (TCR 86.7%). These gaps indicate that despite general satisfaction, the reliability and responsiveness components of SERVQUAL are not fully optimized.

The lack of service speed may be influenced by organizational workflows and staffing levels, suggesting structural inefficiencies. Meanwhile, mismatch in service outputs may reflect outdated collections or insufficient relevance to user needs. These align with findings by (Sa'diyah, S.A., Sary, A., & Ratnaningsih, 2025), who argue that innovation and alignment with user expectations are critical in public service institutions.

b. Description of Service Quality Variables (X1)

Instruments that have been distributed to 392 library users in regional libraries, described each indicator of service quality variables, which can be seen in the following table:

Table 2. Description of Service Quality Variables

Indicator	Shoes Total	Average (Mean)	TCR %	Description
The library services I receive are consistent, timely, and supported by staff who provide accurate information and are ready to help whenever I need it	1369	3,49	87,3	As per
Library staff provide fast, prompt, and helpful service, easily responding to my questions and resolving my complaints	1373	3,50	87,6	As per
The library staff have good knowledge of the collection and services, and always provide polite service, and make me feel comfortable and safe in interacting with the library	1372	3,50	87,5	As per
The library staff understands my needs as a patron, gives me personalized attention, respects and pays attention when I ask for help, and explains information clearly and patiently	1360	3,47	86,7	As per
AverageVariable	1368,5	3,49	87,3	As per

Source; Research Results 2025

While the library staff demonstrate promptness and adequate knowledge, the empathy component is lagging. According to Parasuraman et al., empathy entails personalized service and attention. The limited ability of staff to personalize interactions may stem from heavy workloads or lack of interpersonal training. Thus, despite the adequate responsiveness, user experience may be constrained by limited humanistic engagement, echoing findings by (Gary Yukl, 2019) on the importance of emotional intelligence in service professions.

c. Description of Interpersonal Manager Role Variable (X2)

Based on the results of filling out the instrument that has been collected through 392 library users who visit and utilize local library services, each indicator of the Interpersonal Manager Role variable will be described which can be seen in the following table:

Table 3. Description of Interpersonal Manager Role Variables

Indicator	Shoes Total	Average (Mean)	TCR %	Description
The library manager provides clear and easy-to-understand information, actively provides direction to staff to improve services, and maintains good and open communication with users	1364	3,48	87,0	As per
Library managers have strong leadership, are able to direct staff to provide good services, and create a work environment that supports improving the quality of library services.	1360	3,47	86,7	As per
I feel that the library manager builds good relationships with library users, always tries to understand their needs, and actively interacts to improve library services	1356	3,46	86,5	As per
Library managers are able to resolve complaints or conflicts with users professionally, are responsive in handling problems, and ensure that each problem gets the right solution.	1362	3,47	86,9	As per
I feel that the library manager actively cooperates with other institutions to improve services, conducts collaborative programs that have a positive impact on users, and expands access to information through relationships with other libraries	1362	3,47	86,9	As per
I feel that the library manager has provided training and clear directions to staff to improve services, and encouraged staff to be more proactive in helping users	1364	3,48	87,0	As per
Average Variable	1361,3	3,47	86,8	As per

Source; Research Results 2025

This finding supports Mintzberg's theory (Mintzberg, 1980) that the managerial role consists of leader, liaison, and figurehead functions. While the managers succeed in internal communication and staff coordination, they fall short in external relational roles, particularly with users. The lack of direct interaction could indicate bureaucratic culture, lack of delegation, or insufficient public engagement strategy. Strengthening two-way communication can enhance trust and relational capital with users, as discussed by Lanin (Lanin, 2010).

d. Description of Service Facility Variables (X3)

The results of filling out the instrument that has been collected through 392 users who visit and utilize local library services will be described by each indicator of the Service Facility variable which can be seen in the following table:

Table 4.Description of Service Facility Variables

Indicator	Skor Total	Average (Mean)	TCR %	Description
The library reading room is comfortable to use for long periods of time, with ventilation, lighting, and temperature that support comfort, and the cleanliness of the facilities is always well maintained	1429	3,65	91,1	Very suitable
The library provides enough computers, devices, and supporting facilities such as tables, chairs, and electrical plugs, and all equipment, including computers, are functioning properly	1387	3,54	88,5	As per
The location of the library is easily accessible to users, provides access for people with disabilities, and information about library services and facilities can be easily accessed	1404	3,58	89,5	As per
The library has a good security system, including CCTV surveillance and security guards, so I feel safe and my personal belongings are also well protected while in the library	1413	3,6	90,1	Very suitable
The library provides ample discussion and group study space, a reading room that is not overcrowded, and a dedicated space for research or reference that is available and easily accessible	1403	3,59	89,5	As per
The library provides fast and stable internet/Wi-Fi access, an easy-to-use online catalog search system (OPAC), as well as digital library services such as isumbarmambaco, automatic borrowing and returning of books, and applications/websites that make it easier for me to access information	1398	3,58	89,2	As per
Average Variable	1405,7	3,59	89,6	As per

Source; Research Results 2025

Physical comfort is a strong asset, as evidenced by high scores in room conditions and safety. However, the relatively lower score in technology availability reflects a growing digital expectation gap. This resonates with Hadizah (Hadizah et al., 2024) and Alhidayatullah ((Alhidayatullah, 2023), who note that users increasingly demand not just physical infrastructure, but also digital literacy tools, especially in post-pandemic library services. An integrative look reveals that while all variables contribute to user satisfaction, service quality emerges as the most influential, especially in aspects related to responsiveness and reliability. However, weaknesses in empathy and manager-user interactions highlight the importance of interpersonal capacity, not just technical execution. Likewise, facility adequacy, especially in technology, complements service delivery but requires continuous updating. These findings affirm the holistic model of service quality, where user satisfaction is determined not by single-factor excellence, but by synergistic alignment between infrastructure, human resources, and leadership communication. This is consistent with the SERVQUAL framework, Mintzberg's managerial theory, and recent empirical studies in library

and public service sectors.

Policy and Managerial Implications:

Improve Empathy through Staff Development:

1. Conduct regular communication and emotional intelligence training to improve personalized service.
2. Enhance Manager-User Interaction: Develop programs where managers interact directly with users through feedback forums or public engagement sessions.
3. Upgrade Technological Infrastructure: Increase the number of computers and improve internet bandwidth to support digital services.
4. Conduct Continuous User-Centered Evaluations: Use qualitative feedback (e.g., interviews or suggestion boxes) to complement surveys for deeper insights into satisfaction dynamics.
5. Reinforce Integrated Service Strategy: Adopt a user experience model that synchronizes service quality, managerial engagement, and physical environment as a unified service system.

Classical Assumption Test

To ensure the validity of the multiple linear regression model used, a classical assumption test is carried out which includes tests of normality, multicollinearity, heteroscedasticity, and autocorrelation. This test aims to fulfill the BLUE (Best Linear Unbiased Estimator) assumption on the Ordinary Least Square (OLS) model as emphasized by (Gujarati, 2009).

a. Normality Test

The normality test is a statistical test to determine whether the data has a normal distribution. In this study, the normality test was carried out using the Kolmogorov-Smirnov method. Considering the size of the data is quite large, the exact approach is used because it is considered more accurate in detecting data distribution (Sebayang & Kusmiati, 2020).

Table 5. Normality Test Results

		Unstandardized Residual
N		392
Normal Parameters ^{a,b}	Mean	,0000000
	Std. Deviation	2,10741471
Most Extreme Differences	Absolute	,065
	Positive	,046
	Negative	-,065
Test Statistic		,065
Asymp. Sig. (2-tailed)		,000 ^c
Exact Sig. (2-tailed)		,069
Point Probability		,000

Source; Research Results 2025

The Kolmogorov-Smirnov test results show the value of Exact Sig. (2-tailed) of 0.069, which

exceeds the significance limit of 0.05. This indicates that the data is normally distributed and fulfills the basic assumptions of multiple linear regression. (Ghozali, 2018) emphasizes the importance of the normality test to ensure an unbiased regression model, where a p-value > 0.05 indicates a normal distribution. Support for the use of the Exact value is also provided by Ghasemi & Zahedials (2012) and (Yamamoto, T., Kawai, N., & Fukui, 2016), who consider this approach more accurate in identifying small deviations from the normal distribution.

b. Linearity test

Linearity test Linear regression is performed to ensure that the relationship between the independent and dependent variables in the regression is linear. This assumption is important so that the relationship between variables can be accurately described with a straight line. The test is carried out through the Linearity Test method to verify the suitability of the relationship pattern.

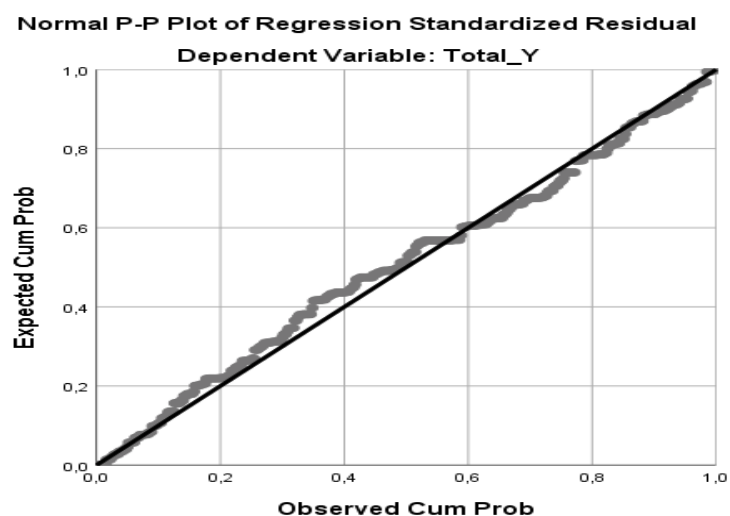
Table 6. Linearity Test Results

No	Variabel	Sig.	Alpha	Description
1	Service Quality (X1)	0,375	0,05	Linier
2	Interpersonal Manager Roles X2)	0,083	0,05	Linier
3	Service Facilities (X3)	0,134	0,05	Linier

Source; Research Results 2025

The linearity test results show that all three independent variables, Service Quality, Interpersonal Manager Roles, and Service Facilities, have significance values above 0.05. This indicates that each variable is linearly related to Library Satisfaction, so the assumption of linearity in multiple linear regression has been met. For more details, it can be seen in the Probability Plot Normality test results displayed in the graph below:

Figure 1. Normality test of probability plot



Based on the Normal P-P Plot graph, the regression model residuals show a pattern that follows the diagonal line, indicating a normal distribution. This strengthens the results of the previous normality test, so the assumption of normality in multiple linear regression is fulfilled and the regression model is considered valid.

c. Heteroscedasticity Test

The heteroscedasticity test aims to evaluate whether the variance of the unstandardized residuals in the regression model remains consistent across all values of the independent variables. Heteroscedasticity, if present, can distort the standard errors, making statistical tests such as the t-test and F-test unreliable. Therefore, it is essential to verify that the regression residuals satisfy the assumption of homoscedasticity, a fundamental requirement for valid inference in Ordinary Least Squares (OLS) regression.

To test this assumption, the Glejser test was conducted using the absolute values of the residuals as the dependent variable and the independent variables (X1, X2, X3) as predictors. The results are presented in Table 7.

Table 7. Heteroscedasticity Test Results

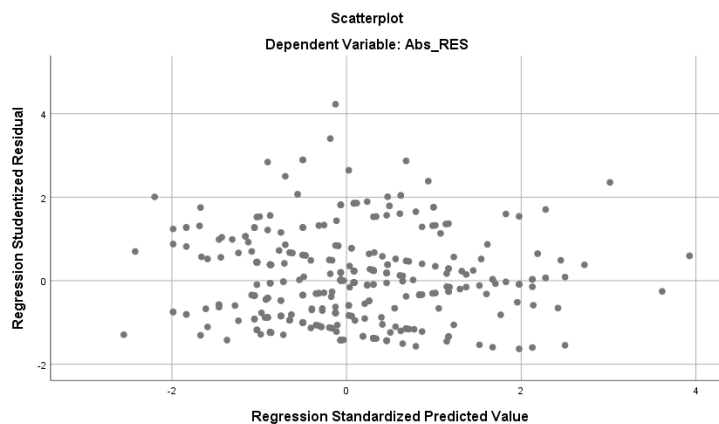
No	Variabel	Sig.	Alpha	Description
1	QualityService (X1)	0,209	0,05	No heteroscedasticity
2	Interpersonal Manager Roles X2)	0,352	0,05	No heteroscedasticity
3	FacilitiesServices (X3)	0,750	0,05	No heteroscedasticity

Source; Research Results 2025

As shown in the table, all significance values are greater than the threshold of $\alpha = 0.05$, indicating that none of the independent variables significantly influence the variance of the unstandardized residuals. This suggests that the residuals are homogeneous across the predictor range, fulfilling the homoscedasticity assumption.

To further substantiate this finding, a scatterplot of the unstandardized residuals against the predicted values was examined (Figure 2):

Figur 2. Heteroskedastisitas Test Scatterplots



The scatterplot displays a random distribution of residual points around the horizontal axis (zero line), without forming any distinct funnel-shaped patterns either narrowing or widening. This visual evidence supports the statistical findings by indicating no systematic variance of residuals across different levels of predicted values.

In conclusion, both the Glejser test and the scatterplot analysis confirm the absence of heteroscedasticity in the model. Therefore, the assumption of equal residual variance is satisfied, and the regression model is considered valid for further parametric analysis.

d. Autokorelasi Test

The Durbin-Watson test yields a value of 1.81, which is between the lower and upper limits ($du < DW < 4 - du$). This indicates no autocorrelation. Given the cross-sectional nature of the data, this result is expected as autocorrelation is more prevalent in time series data.

Multiple Linear Regression Analysis

Based on the results of data processing using SPSS version 26, the multiple linear regression equation is obtained as follows:

$$Y = 6.155 + 0.231X_1 + 0.195X_2 + 0.319X_3$$

Interpretation:

1. The constant (6,155) indicates that if all independent variables are zero, then the base value of library satisfaction is 6,155.
2. The coefficient X_1 (0.231) indicates that an increase in service quality by 1 unit will increase library satisfaction by 0.231 units, assuming other variables are constant.
3. The coefficient of X_2 (0.195) indicates that the role of interpersonal managers positively affects satisfaction, although the contribution is lower than X_1 and X_3 .
4. The coefficient of X_3 (0.319) is the highest, indicating that improving service facilities has the strongest influence on library satisfaction..

These results reinforce previous findings that the role of physical and digital facilities in supporting convenience, access, and efficiency of services is decisive in creating positive perceptions of library services, see: (Hadizah et al., 2024; Zeithaml et al., 2018).

Hypothesis Test

Hypothesis testing is done through partial test (t-test) and simultaneous test (F-test) with a significance level of 5%. The results are explained as follows:

Table 8. Partial Test (t-Test)

Independent Variable	t-count	Sig.	Decisionn
X_1 : Service Quality	3.965	0.000	Significant
X_2 : Managerial Role	3.408	0.001	Significant
X_3 : Facilities	5.307	0.000	Significant

Source; Research Results 2025

All three independent variables have a significant effect on library satisfaction. The highest coefficient is owned by the service facility variable, indicating that the comfort of space, access to technology, and completeness of facilities have a high weight in user perception.

This result supports the findings by Kotler & Keller (2016) that "service tangibles" are the first aspect that users assess before relationship quality and service processes.

3.2 The Relationship between Service Quality, the Role of Interpersonal Managers, and Service Facilities to Library Satisfaction in the Regional Library of West Sumatra Province

a. Service Quality and Library Satisfaction

Service quality in the Regional Library of West Sumatra Province is proven to have a significant effect on user satisfaction, as shown in the linear regression analysis with a coefficient of 0.898 and a calculated t value of 10.405. This means that every one unit increase in service quality will increase library satisfaction by 0.898 units. Descriptively, the reliability and responsiveness indicator obtained the highest score with a Respondent Achievement Rate (TCR) of 87.6% (Table 4.6), emphasizing the importance of accuracy and speed of response in providing services. This finding is in line with the view of (Parasuraman, A., Zeithaml, V. A., & Berry, 2018), which states that responsiveness and reliability are the two main dimensions in assessing the quality of public services, including libraries.

However, some other aspects such as service products and service time show relatively lower scores, indicating a mismatch between user expectations and available services. Users complained about the unoptimized service time and the lack of innovation in service products. This reinforces the findings of (Sa'diyah, S.A., Sary, A., & Ratnaningsih, 2025), which underline that product quality and service speed are crucial components in shaping customer satisfaction. Thus, improving service quality should be directed not only at accuracy and responsiveness, but also at providing relevant and efficient service products in a timely manner.

b. The Role of Interpersonal Managers in Increasing Library Satisfaction

Analysis of the role of interpersonal managers shows a significant contribution to library satisfaction. Based on the linear regression results (Table 4.17), the interpersonal manager role has an effect of 0.384 units on library satisfaction, with a standardized coefficient of 0.296, indicating a substantial contribution. Indicators reflecting managers' communication with staff and staff training showed high scores with a Respondent Achievement Rate (TCR) of 87% each (Table 4.7). This reflects that managers have carried out the function of leadership and internal direction well, in line with the manager's role as a leader according to (Mintzberg, 1980).

However, the indicator regarding the direct relationship between managers and users showed the lowest score, with a TCR of 86.5%, particularly on the statement "managers build good

relationships with users". This indicates the need to improve the quality of direct interaction between managers and service users. Managers' personal involvement in understanding library users' needs and establishing two-way communication is still not optimal. This reinforces the relevance of (Mintzberg, 1980) on the importance of the manager's role as a liaison between the organization and external parties such as users.

Thus, improving the interpersonal relationship aspect between managers and users is important to increase overall satisfaction. Managers need to be present not only as internal leaders, but also as relational actors who actively build connections and empathy with users to strengthen user loyalty to library services.

c. Service Facilities and Library Satisfaction

Service facilities at the Regional Library of West Sumatra Province contributed significantly to user satisfaction, with a regression coefficient of 0.220. Although the effect is smaller than service quality and the role of interpersonal managers, this result still shows that improving facilities can have a direct impact on user satisfaction. In the descriptive analysis, indicators of reading room comfort and facility security received the highest rating with a Respondent Achievement Rate (TCR) of 91.1%, indicating that physical aspects such as comfort and security are important factors that are highly appreciated by users.

However, indicators related to the accessibility of technology facilities, including the availability of computers and Wi-Fi networks, received a lower TCR of 88.5%. Although still in the "suitable" category, this figure indicates that there is an expectation from the library users to improve digital facilities and technological devices. This need is in line with the findings of (Hadizah et al., 2024), who emphasized that the availability of adequate technology facilities is very influential in creating a satisfying service experience, especially in today's digital era.

d. Linkages Between the Three Variables (Service Quality, Interpersonal Manager Roles, and Service Facilities)

Overall, the regression analysis results show that service quality, the role of interpersonal managers, and service facilities simultaneously have a very significant influence on library satisfaction. This is reflected in the Adjusted R Square value of 0.791 (Table 4.20), which shows that the three variables are able to explain 79.1% of the variation in library satisfaction. This finding supports the customer experience theory, which asserts that service user satisfaction is influenced by the synergy between the quality of service interactions, communication skills of managers, and the availability of adequate supporting facilities.

3.3 The Effect of Service Quality, the Role of Interpersonal Managers, and Service Facilities on Library Satisfaction

The effect of service quality on library satisfaction

a. Effect of Service Quality on Library Satisfaction

Based on the results of descriptive and regression analysis, the quality of service at the Regional Library of West Sumatra Province is considered appropriate by users, especially in

the indicator of responsiveness of officers who meet user expectations. The multiple regression results show an R value of 0.861 and an Adjusted R Square of 0.741, which means that 74.1% of the variation in library satisfaction can be explained by service quality. This finding indicates a very strong relationship between service quality and user satisfaction. In addition, the significance test results show the value of Sig. = 0.000 (<0.05), which indicates that service quality has a significant effect on library user satisfaction with a 100% confidence level. This confirms that improving service quality directly and strongly affects the level of satisfaction of library users. Thus, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted, that service quality significantly affects user satisfaction in the regional library of West Sumatra Province.

b. The Effect of Interpersonal Manager Role on Library Satisfaction

The results of descriptive analysis showed that the users assessed the role of interpersonal managers in the Regional Library of West Sumatra Province to be in the "appropriate" category with their expectations. Based on the results of multiple regression, the value of R = 0.815 and Adjusted R Square = 0.664, which means that 66.4% of variations in library satisfaction can be explained by the role of interpersonal managers. This indicates a very strong and positive relationship between these variables.

Furthermore, the significance test results show a value of Sig. = 0.000 (<0.05), which indicates that the effect of interpersonal manager roles on library satisfaction is statistically significant. With a 100% confidence level, it can be concluded that this variable has a real contribution in shaping library service user satisfaction.

Thus, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted. This means that the role of interpersonal managers has a significant effect on user satisfaction in the library, although there is still 33.6% variation influenced by other factors outside this variable.

c. The Effect of Service Facilities on Library Satisfaction

The results of the linear regression test on the Service Facility variable show a significant influence on library satisfaction in the Regional Library of West Sumatra Province. With an R value of 0.782 and Adjusted R Square of 0.610, it is known that 61% of the variation in library satisfaction can be explained by service facilities, while the rest is influenced by other factors. The significance value of 0.000 confirms that this effect is statistically significant.

Furthermore, multiple linear regression analysis of the three independent variables of Service Quality, Interpersonal Manager Role, and Service Facilities showed a simultaneous contribution of 79.1% to library satisfaction, with an Adjusted R Square value of 0.791 and a significance of 0.000. This shows that the three variables collectively have a very strong and significant influence in explaining the level of library satisfaction.

Thus, it can be concluded that the null hypothesis is rejected and the alternative hypothesis is accepted, namely that the three independent variables both partially and simultaneously have

a significant effect on user satisfaction in local libraries. This finding confirms the importance of quality services, effective interpersonal management, and adequate facilities in enhancing users' experience and satisfaction with library services.

3.4 The Effect of Service Quality on Library Satisfaction at the Regional Library of West Sumatra Province.

The results of this study indicate that service quality has a very significant influence on library satisfaction in the Regional Library of West Sumatra Province, with a significance value of 0.000 ($p < 0.05$) and an Adjusted R Square value of 0.741. That is, 74.11% of the variation in library satisfaction is explained by service quality, the remaining 25.89% is influenced by other factors. This result shows that service quality is the main determinant of library satisfaction, in line with the theory of the library (Parasuraman, A., Zeithaml, V. A., & Berry, 2018), which states that the dimensions of responsiveness, reliability, assurance, and empathy greatly determine user perceptions of services.

Descriptively, the responsiveness aspect obtained the highest score (TCR 87.6%), indicating that the speed and alertness of librarians in responding to user needs is highly appreciated. In contrast, the empathy indicator recorded the lowest score (TCR 86.7%), indicating the need for improvement in personal attention and interpersonal communication. This is in line with the findings of (Rina Wati, M. Husaini, 2023), (Siti Rahmawati, 2019), and (Irfan Maulana, 2019), which each found that service quality has a significant effect on the satisfaction and loyalty of library service users in various regions.

This research is also reinforced by Sidabutar's study (2019) and (Lutfiatul Khasanah, 2024), which shows the relevance of service quality in influencing user satisfaction, both in public and academic libraries. Thus, it can be concluded that high service quality, especially in the aspects of reliability, accuracy, and responsiveness, is crucial in shaping positive experiences, good perceptions, and long-term loyalty of library users. To maintain and improve satisfaction, libraries need to focus on continuously improving service empathy and professionalism.

a. The Effect of the Role of Interpersonal Managers on Library Satisfaction at the Regional Library of West Sumatra Province

The results showed that the role of interpersonal managers had a significant effect on library satisfaction in the Regional Library of West Sumatra Province, with a significance value of 0.000 ($p < 0.05$) and Adjusted R Square of 0.664. That is, 66.4% of the variation in library satisfaction is explained by the role of interpersonal managers. This contribution is reinforced by the descriptive results, where the two highest indicators obtained a Respondent Achievement Rate (TCR) of 87.0% related to the manager's ability to provide clear directions and maintain open communication. Meanwhile, the lowest indicator (TCR 86.5%) related to the ability to build direct relationships with users, indicating that the empathy aspect can still be improved.

This finding is in line with the theory (Mintzberg, 1980), which places the manager's interpersonal role, as figurehead, leader, and liaison, as a key function in shaping a supportive

organizational climate. In the context of libraries as a public service, managers who fulfill their interpersonal roles effectively will increase staff motivation and create responsive services. Lanin (Lanin, 2010) emphasizes the importance of interpersonal roles in bridging user expectations and perceptions through personal attention and good communication. Managers who are sensitive to users' emotional needs can create a more positive service experience. Previous studies have reinforced these findings. (Farida Agustin, 2021) found that leadership style as a concrete form of interpersonal roles has a significant effect on customer satisfaction ($R^2 = 60.8\%$). (Libson, 1997) showed that the communication and cooperation dimensions of patient service managers in hospitals contributed to increasing user satisfaction. Ahmad Zainal (2020) also found a significant relationship between the role of interpersonal managers and the quality of public services (sig. = 0.000). With a high TCR value (86.5-87.0%) and a strong coefficient of determination, improving the interpersonal capacity of library managers, especially in communication, empathy, and collaborative leadership, is a key strategy to sustainably improve user satisfaction.

b. The Effect of Service Facilities on Library Satisfaction at the Regional Library of West Sumatra Province

The results of this study prove that service facilities have a significant influence on user satisfaction in the Regional Library of West Sumatra Province, as indicated by a significance value of 0.000 ($p < 0.05$) and Adjusted R Square of 0.610. This means that 61% of the variation in library satisfaction is influenced by the quality of facilities, while the remaining 39% is influenced by other factors outside this model. The indicators with the highest Respondent Achievement Rate (TCR) are the physical comfort of the reading room and supporting facilities (TCR 87.6% and 87.3%), while the spatial layout indicator recorded the lowest TCR score (86.7%), but still in the category of "Suitable."

This finding is reinforced by (Tjiptono, F., & Chandra, 2019), which states that physical facilities play an important role in supporting service delivery and shaping a pleasant user experience. Good facilities are not only functional, but also reflect the institution's professionalism and attention to user comfort. In the context of libraries, this includes cleanliness, the comfort of the reading room, and the completeness of technology and digital facilities.

Similar studies also support this conclusion. (Sari, 2019) noted that facilities have a significant influence on Trans Batam user satisfaction, with a determination value of 85.6%. (Rina Wati, M. Husaini, 2023) also found that library facilities have a major contribution in creating user loyalty. In addition, (Lutfiatul Khasanah, 2024) shows that infrastructure facilities have a significant effect on student satisfaction ($R^2 = 62.4\%$), while the effect of infrastructure facilities on student satisfaction ($R^2 = 62.4\%$) (GideonSetiawan, Prima Hafizh Yanuarizki, Syaiful Anwar, Nita Arini Haq, Farah Amalia Sari, n.d.) in hospital service studies confirmed the importance of facility completeness and convenience on user satisfaction. Thus, continuous evaluation of library facilities needs to be a strategic priority to ensure that users

feel facilitated and valued in their service experience.

c. The Effect of Service Quality, the Role of Interpersonal Managers and Service Facilities on Library Satisfaction at the Regional Library of West Sumatra Province.

The results of research at the Regional Library of West Sumatra Province show that service quality, the role of interpersonal managers, and service facilities simultaneously have a significant effect on library satisfaction, with a significance of 0.000 and Adjusted R Square of 0.791. This means that these three variables are able to explain 79.1% of the variation in library satisfaction, while the remaining 20.9% is influenced by other factors outside the model. Theoretically, this is in accordance with the SERVQUAL model from (Parasuraman, A., Zeithaml, V. A., & Berry, 2018), which emphasizes the dimensions of reliability, responsiveness, assurance, and empathy in shaping service quality. Similarly, managerial role theory (Mintzberg, 1980) which emphasizes the importance of managers' interpersonal functions in creating coordination, trust and motivation of public services. From the physical side, (Susi Marlina, 2018) emphasizes that clean, functional, and comfortable facilities are important elements in creating a satisfying service experience.

This finding is in line with research (Nuratun Zakiyah, 2020) which shows that interpersonal communication, work discipline, and facilities directly and indirectly affect community satisfaction, mainly through the mediation of service quality. Facilities, for example, contributed directly by 0.360 and through service quality by 0.1354, totaling 0.4954. Similarly, service quality was shown to strengthen the effect of interpersonal communication on user satisfaction, with a t-value of 3.013 and a significance of 0.003. Another study by Endang and Cholida (2017) at Rajekwesi Terminal also supports that service quality and facilities are key determinants of public service user satisfaction, although their influence may vary based on context.

Practical Implications: This research suggests that public library management should prioritize continuous digital infrastructure upgrades, staff emotional intelligence training, and direct managerial engagement with users. Policymakers at the regional level are advised to integrate library development into broader digital inclusion strategies, while library managers should adopt a user-centered service model that combines quality, interpersonal communication, and adaptive facilities. These steps will ensure sustainable satisfaction and strengthen the role of libraries in promoting equitable access to knowledge.

Overall, it can be concluded that library satisfaction is highly dependent on the synergy between quality services, communicative and supportive management, and adequate facilities. All three form a service system that is responsive to user needs, in accordance with Undari and Ismiyati's (2016) view that satisfaction is achieved when services exceed user expectations. The West Sumatra Provincial Library has shown positive achievements in these three aspects. However, to maintain and improve user satisfaction in a sustainable manner, it needs to be strengthened through communication training for staff, periodic facility improvements, and managerial capacity building in interpersonal approaches.

4. Conclusion

This study investigated how service quality, the interpersonal role of managers, and service facilities influence user satisfaction at the Regional Library of West Sumatra Province. The

findings demonstrate that all three factors play a significant role in shaping users' overall satisfaction, with service quality emerging as the most decisive factor. The dimensions of reliability and responsiveness are especially valued by users, indicating that prompt and dependable service delivery is central to their positive experience. However, the dimension of empathy remains underdeveloped and should be strengthened to promote more user-centered and communicative service interactions.

The role of interpersonal management also proved critical, particularly in fostering internal coordination and staff readiness. Yet, the study identifies a need for stronger direct engagement between managers and library users. Strengthening this interaction can help foster relational trust and enhance perceived responsiveness and care, which are increasingly demanded by users in public service settings.

While facilities such as reading spaces and cleanliness are well-regarded, technology infrastructure and digital accessibility remain areas requiring targeted improvement. These aspects are particularly relevant as users' expectations shift toward more hybrid and digitally enriched library experiences.

From a theoretical perspective, the study contributes to the refinement of the SERVQUAL model by integrating managerial behavior as a relevant explanatory variable in public library contexts, extending the model beyond its conventional focus on front-line service attributes. Practically, the findings suggest the necessity of a strategic, integrative approach in public library management that simultaneously strengthens service performance, leadership communication, and infrastructure development.

This research is not without limitations. It is cross-sectional in nature and focused on a single institution, limiting generalizability. Future research could apply a comparative design across different regional libraries or explore longitudinal changes in user satisfaction in response to specific service reforms. Further studies might also examine how digital literacy, user motivation, or institutional trust mediate the relationship between service variables and satisfaction outcomes.

In sum, improving library satisfaction in a sustainable manner requires more than isolated upgrades to services or infrastructure. It calls for systemic alignment between responsive service delivery, emotionally intelligent leadership, and adaptive facility enhancement, especially in the face of evolving user expectations in public information services.

5. Ethical Approval

This study was conducted in accordance with ethical research standards involving human participants. Ethical approval was obtained from the Ethics Committee of the Faculty of Social Sciences, Universitas Negeri Padang, Indonesia. All participants were informed about the purpose of the research, and their participation was voluntary. Confidentiality and anonymity of responses were ensured throughout the research process.

6. CRediT (Contributor Roles Taxonomy) Authorship Contribution Statement

Yelvi Oktavia: Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Writing – Original Draft.

Dasman Lanin: Supervision, Validation, Visualization, Writing – Review & Editing.

7. Declaration of AI and AI assisted technologies in the writing process

During the preparation of this work, the authors used AI-assisted tools to improve language

clarity and grammar only. The authors reviewed and verified all content to ensure intellectual and analytical responsibility for the final manuscript. No generative AI was used to create or analyze data, develop interpretations, or draw conclusions.

8. Declaration of Competing Interest (Conflict of Interest Statement)

The authors declare no conflict of interest related to this research and publication.

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11. Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request. Due to ethical considerations and institutional data use agreements, the dataset is not publicly accessible.

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