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The Effect of Library Facility Modernization on the Educational Function at Universitas Negeri Padang Library

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Abstract

Although academic libraries have modernized their physical infrastructure and technological systems, the extent to which these improvements optimize their educational function in the digital era remains insufficiently examined. This study aims to analyze the influence of library facility modernization on the educational function of the library at Universitas Negeri Padang. A quantitative approach with a causal-associative design was employed. The study population comprised 8,282 library users in 2025, from which 99 respondents were selected through random sampling using the Slovin formula. Data were collected using a structured Likert-scale questionnaire that had been tested for validity and reliability, supported by literature review and documentation. The data were analyzed using descriptive and inferential statistics through simple linear regression with SPSS, following prerequisite tests of normality, linearity, and heteroscedasticity. The findings show that library facility modernization was categorized as good, with a mean score of 3.23, while the educational function of the library was also categorized as good, with a mean score of 3.24. Regression analysis revealed that facility modernization had a positive and significant effect on the educational function of the library, with a regression coefficient of 0.931 and a significance level below 0.05. The correlation

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coefficient of 0.842 indicates a very strong relationship, and the coefficient of determination of 0.708 shows that facility modernization explains 70.8% of the variance in the library's educational function. The study concludes that improving library facility modernization significantly strengthens the educational function of academic libraries. These findings contribute to the development of user-oriented academic library services by emphasizing the importance of facility enhancement, digital accessibility, and information literacy support in promoting effective learning in higher education.

Keywords: Academic Library; Educational Function; Facility Modernization; Information Literacy; Library Services

INTRODUCTION

The rapid advancement of information and communication technology has significantly reshaped various sectors, including higher education and its supporting institutions. Among these, academic libraries have undergone substantial transformation in response to technological innovation and evolving user needs. Traditionally perceived as repositories of printed materials, academic libraries have progressively developed into dynamic learning environments that integrate digital resources, advanced technologies, and collaborative spaces to support academic engagement and knowledge creation (Aisyah & Rahmah, 2025). This transformation reflects a broader shift in the paradigm of knowledge access, where flexibility, accessibility, and interactivity are essential components of modern learning ecosystems.

In the context of higher education, academic libraries hold a strategic role in supporting the implementation of the Tri Dharma of higher education, which encompasses education, research, and community service. Libraries function as central hubs for scholarly information, providing access to a wide range of academic resources that are essential for teaching, learning, and research activities (Fadilla, 2020). Furthermore, libraries contribute to the development of students' intellectual capacity by facilitating access to credible and relevant information that supports academic inquiry (Arief, 2020). In addition, academic libraries play a critical role in fostering information literacy, enabling students to critically evaluate and effectively utilize information in academic contexts (Amirullah, 2022). The increasing complexity of information needs in the digital era has compelled academic libraries to adapt through continuous innovation and development. One of the most

prominent forms of this adaptation is the modernization of library facilities, which involves the enhancement of physical infrastructure, integration of information technology, and expansion of digital services (Buana, 2025). Facility modernization is not merely a process of upgrading physical spaces, but also a strategic effort to align library services with contemporary learning practices and technological advancements.

Modern academic libraries are expected to provide environments that are not only functional but also conducive to diverse learning styles. This includes the provision of flexible learning spaces, collaborative areas, and technologically equipped environments that support both individual and group activities (Cantika et al., 2025). In addition to physical improvements, technological facilities such as internet access, digital catalogs, and electronic resources have become integral components of modern libraries, enabling users to access information efficiently and effectively (Ilhami et al., 2024). These developments contribute to the transformation of libraries into hybrid spaces that combine physical and digital learning environments. Moreover, the design and spatial organization of library facilities play a significant role in influencing user behavior and engagement. A well-designed library environment can enhance user comfort, increase motivation to study, and improve overall learning productivity (Afrina et al., 2023). Contemporary library design emphasizes flexibility, accessibility, and user-centered approaches, reflecting the changing expectations of students as primary users of academic libraries.

From a broader perspective, facility modernization is closely linked to the evolving role of libraries as centers for lifelong learning and knowledge dissemination. Libraries are increasingly expected to support not only formal education but also informal and self-directed learning processes (Mardiyanto & Syafrizal, 2021). This shift underscores the importance of libraries as active participants in the educational ecosystem, rather than passive providers of information. Despite the numerous benefits associated with facility modernization, emerging evidence suggests that improvements in library facilities do not always lead to the optimization of their educational function. In many cases, the enhancement of facilities has been accompanied by changes in user behavior that are not entirely aligned with academic purposes (Fatrizal et al., 2025). Libraries are increasingly used as social spaces where students engage in activities that may not directly contribute to learning or research.

This phenomenon indicates a potential mismatch between the intended function of libraries as academic support institutions and their actual utilization by users. While modern facilities attract more visitors and increase the overall usage of library spaces, they may also contribute to the diversification of activities within the library, including non-academic interactions. As a result, the educational function of libraries may be diluted or overshadowed by other functions. Conceptually, the educational function of academic libraries is fundamental to their existence within higher education institutions. This function involves providing access to information resources, supporting teaching and learning processes, and facilitating the development of information literacy skills among users (Hilda Rosyida & Anggraeni, 2020). Libraries also serve as facilitators of self-directed learning, enabling students to independently seek, evaluate, and utilize information for academic purposes (Fauzi, 2022). Furthermore, libraries contribute to the creation of conducive learning environments that support both individual and collaborative learning activities. Quiet study areas, discussion rooms, and multimedia facilities are designed to accommodate different learning preferences and enhance students' academic performance (Fernadi & Ma'ruf, 2022). The availability of diverse learning spaces reflects the evolving role of libraries as flexible learning environments that cater to various user needs.

However, the effectiveness of the educational function of libraries is not solely determined by the availability of facilities. It is also influenced by how these facilities are utilized by users. The presence of advanced facilities does not automatically guarantee their optimal use for academic purposes. Instead, user behavior, motivation, and awareness play crucial roles in determining the extent to which library resources contribute to learning outcomes. Previous studies have examined the relationship between library facilities and user behavior, particularly in terms of reading interest and library usage. Majid et al. (2024) found that library facilities have a significant positive effect on students' reading interest, highlighting the importance of resource availability and comfortable study environments. This finding suggests that well-developed facilities can encourage students to engage more actively in academic activities.

Similarly, Dongoran and Febriyana (2020) emphasized that both library facilities and librarian services play important roles in influencing students' reading interest. Their study indicates that the effectiveness of library services is influenced by a combination of physical infrastructure and human interaction. In addition, Hasanuddin et al. (2024) reported that library facilities significantly affect reading behavior, which in turn impacts

students' learning outcomes. Although these studies provide valuable insights into the role of facilities in shaping user behavior, they tend to focus primarily on aspects such as reading interest, user satisfaction, and visitation frequency. They do not comprehensively address how facility modernization influences the educational function of libraries as a whole. This limitation highlights the need for further research that examines the broader implications of facility modernization.

The research gap identified in this study lies in the limited exploration of the direct relationship between facility modernization and the educational function of academic libraries, particularly in the context of changing user behavior in the digital era. Existing studies tend to treat facilities as determinants of user satisfaction or engagement, rather than as factors that influence the core educational role of libraries. In addition to this theoretical gap, there is also an empirical gap that emerges from the local context. The Library of Universitas Negeri Padang has undergone significant modernization, including improvements in physical infrastructure, digital services, and technological facilities. These developments have enhanced the attractiveness of the library and increased student visitation. However, preliminary observations indicate that not all users utilize these facilities for academic purposes, suggesting a shift in usage patterns ().

This situation raises important questions regarding the effectiveness of facility modernization in supporting the educational function of libraries. While modern facilities provide greater comfort and accessibility, they may also lead to the diversification of activities that are not directly related to academic objectives. Consequently, there is a need to critically examine whether modernization contributes to the strengthening or weakening of the educational role of libraries. Another important aspect to consider is the role of information literacy in mediating the relationship between facilities and educational outcomes. The availability of advanced facilities does not automatically enhance learning if users lack the skills to effectively access and utilize information. Therefore, libraries must not only provide facilities but also support users in developing information literacy competencies (Association of College and Research Libraries, 2016). In this regard, facility modernization should be understood as a multidimensional process that involves the integration of physical infrastructure, technological systems, and educational services. A holistic approach to modernization is necessary to ensure that improvements in facilities are aligned with the core mission of libraries as educational institutions.

The novelty of this study lies in its integrative approach that conceptualizes facility modernization and educational function as interconnected variables and examines their relationship through a quantitative framework based on user behavior. Unlike previous studies, this research does not treat facilities merely as supporting elements, but as key determinants that influence how libraries are utilized for academic purposes. The theoretical foundation of this study is based on the concept of library facility modernization, which includes physical, technological, and service dimensions (Mulyawan & Setiawan, 2023). It also draws on the concept of the educational function of libraries, which emphasizes their role in supporting learning, research, and information literacy development (Vellania et al., 2023). The integration of these concepts provides a comprehensive framework for analyzing the impact of modernization on library functions.

Furthermore, this study is informed by information literacy theory, which highlights the importance of developing students' abilities to access, evaluate, and use information effectively in academic contexts (Association of College and Research Libraries, 2016). In this perspective, libraries play a central role in facilitating the acquisition of these competencies. Based on these considerations, this study focuses on analyzing the influence of facility modernization on the educational function of the Universitas Negeri Padang Library. The study aims to identify the extent to which modern facilities support academic activities and to examine whether modernization contributes to the enhancement or transformation of the educational role of libraries. Ultimately, this research is expected to contribute to the development of library and information science by providing empirical evidence on the relationship between facility modernization and educational function. It also aims to offer practical insights for library management in designing strategies that balance user comfort with the strengthening of academic functions, ensuring that libraries remain relevant and effective in supporting higher education in the digital era.

METHODS

This study employed a quantitative approach with a causal associative design aimed at examining the cause-and-effect relationship between variables through statistical analysis. The quantitative method was selected because the study focuses on numerical data collection and statistical processing to test hypotheses and derive objective conclusions. Specifically, this research investigates the effect of the modernization of academic library

facilities on the educational function of the library at Universitas Negeri Padang. The causal approach enables not only the identification of relationships but also the measurement of the direction and magnitude of influence between variables.

The research design incorporates two primary variables: the independent variable (X), namely the modernization of library facilities, and the dependent variable (Y), which is the educational function of the library. The indicators of the independent variable include: (1) safe, comfortable, and flexible physical infrastructure, (2) integration of information technology in library services, (3) accessibility of digital information resources, and (4) collaborative learning facilities. Meanwhile, the dependent variable is measured through: (1) availability and adequacy of academic information resources, (2) support for learning processes, (3) information literacy facilities, and (4) support for research activities. These indicators were developed based on the theoretical framework of the Association of College and Research Libraries (ACRL), ensuring conceptual validity and alignment with the research objectives. The population of this study consisted of all library users who visited the Universitas Negeri Padang Library in 2025, totaling 8,282 individuals. The sample was determined using a random sampling technique to ensure equal opportunity for each population member to be selected. The sample size was calculated using the Slovin formula with a margin of error of 10%, resulting in 99 respondents. This sampling approach was chosen to ensure representativeness and minimize sampling bias.

Data were collected using a structured questionnaire based on a four-point Likert scale, ranging from strongly agree to strongly disagree. The instrument was developed according to the defined indicators and designed to capture respondents' perceptions quantitatively. Prior to data collection, the instrument underwent validity and reliability testing. Validity was assessed using the Pearson Product Moment correlation, indicating that 24 out of 30 items were valid and retained for analysis. Reliability was evaluated using Cronbach's Alpha, yielding coefficients of 0.817 for the independent variable and 0.876 for the dependent variable, indicating high internal consistency. The data collection techniques included questionnaires as the primary data source, complemented by literature review and documentation. The questionnaire was distributed directly to respondents to obtain primary data regarding their perceptions of library facilities and their educational functions. The literature review provided theoretical support and informed the development of research indicators, while documentation offered supplementary data related to the library's condition and services.

Data analysis was conducted using quantitative statistical techniques with the assistance of SPSS software. The analysis process involved data editing, tabulation, descriptive analysis, and hypothesis testing. Descriptive statistics were used to summarize the data through mean, minimum, maximum, and standard deviation values. Prior to regression analysis, prerequisite tests were conducted, including normality testing using the Kolmogorov–Smirnov test, linearity testing through ANOVA Test of Linearity, and heteroscedasticity testing using the Glejser method to ensure that statistical assumptions were met. Subsequently, simple linear regression analysis was employed to examine the influence of the independent variable on the dependent variable. Hypothesis testing was performed using the t-test to determine the significance of partial effects and the F-test to assess the overall model significance. Additionally, the coefficient of determination (R^2) was calculated to measure the extent to which the independent variable explains the variance in the dependent variable. All analytical procedures were conducted systematically to ensure the validity, reliability, and scientific rigor of the findings. The research was conducted in 2025, encompassing stages from research design, data collection, data analysis, to report writing. The entire process was carried out systematically to ensure that the research objectives were achieved effectively and comprehensively.

RESULTS

1. Normality Test

One-Sample Kolmogorov-Smirnov Test

			Unstandardized Residual
N			99
Normal Parameters[a,b]	Mean		.0000000
	Std. Deviation		.41226191
Most Extreme Differences	Absolute		.059
	Positive		.059
	Negative		-.047
Test Statistic			.059
Asymp. Sig. (2-tailed)[c]			.200[d]
Monte Carlo Sig. (2-tailed)[e]	Sig.		.533
	99% Confidence Interval	Lower Bound	.520
		Upper Bound	.546

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 299883525.

Figure 1. Normality Test Statistics

Figure 1 presents the results of the normality test, inicating that the significance value (Asymp. Sig. 2-tailed) is 0.200. This value exceeds the predetermined significance level of 0.05; therefore, it can be inferred that the residuals in this study are normally distributed. Accordingly, the assumption of normality has been satisfied, demonstrating that the data meet one of the essential prerequisites for regression analysis and are suitable for further analysis in subsequent testing stages.

2. Lineartity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Fungsi_Edukatif_Perpustakaan_Y * Modernisasi_Fasilitas_Perpustakaan_X	Between Groups	(Combined)	1014.921	15	67.661	23.524	<,001
		Linearity	887.875	1	887.875	308.683	<,001
		Deviation from Linearity	127.046	14	9.075	3.155	<,001
	Within Groups		238.735	83	2.876		
	Total		1253.657	98			

Figure 2. Linearity Test

Figure 2 presents the results of the linearity test, demonstrating that there is a statistically significant effect of library facility modernization (X) on the educational function at the Padang State University Library (Y). This is evidenced by the significance value in the linearity component, which is < 0.001 ($p < 0.05$), indicating that the relationship between the two variables is statistically significant. Furthermore, the relatively high F-value obtained from the linearity test reinforces that the modernization of library facilities exerts a substantial influence on the library's educational function. Therefore, the hypothesis stating that variable X has an effect on variable Y is accepted.

3. Heteroscedasticity Test

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-2.690	.000		-15842063.239	<,001
	Modernisasi_Fasilitas_Perpustakaan_X	-.931	.000	-1.558	-122215197.4	<,001
	Fungsi_Edukatif_Perpustakaan_Y	1.000	.000	1.851	145224059.73	<,001

a. Dependent Variable: Unstandardized Residual

Figure 3. Result Heteroscedasticity Test

Figure 3 presents the results of the heteroscedasticity test, indicating that the variables of library facility modernization (X) and the educational function of the library

(Y) exhibit significance values of < 0.001 (p < 0.05). This finding suggests that both variables have a statistically significant influence on the residual values. Consequently, it can be inferred that heteroscedasticity is present within the regression model, implying that the variance of the residuals is not constant. This condition indicates that the model does not satisfy one of the classical assumptions of regression analysis; therefore, further remedial measures are necessary to enhance the robustness, reliability, and accuracy of the analytical results.

4. Simple Linear Regression Analysis

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	887.875	1	887.875	235.452	<,001[b]
	Residual	365.781	97	3.771		
	Total	1253.657	98			

a. Dependent Variable: Fungsi_Edukatif_Perpustakaan_Y

b. Predictors: (Constant), Modernisasi_Fasilitas_Perpustakaan_X

Figure 4. Result Simple Linear Regression Analysis

Figure 4 presents the results of the simple linear regression analysis, revealing an F-value of 235.452 with a significance level of < 0.001 (p < 0.05). This finding indicates that the regression model employed in this study is statistically highly significant and robust in explaining the relationship between the independent variable (X) and the dependent variable (Y). Therefore, the model can be considered appropriate and reliable for further analysis and interpretation.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.690	2.489		1.081	.282
	Modernisasi_Fasilitas_Perpustakaan_X	.931	.061	.842	15.344	<,001

a. Dependent Variable: Fungsi_Edukatif_Perpustakaan_Y

Figure 5. Coefficient Table

Figure 5 presents the coefficient table, from which the regression equation is obtained as Y=2.690+0.931XY = 2.690 + 0.931XY=2.690+0.931X. The regression coefficient of 0.931 indicates that each one-unit increase in library facility modernization is

associated with an increase of 0.931 in the educational function of the library. Furthermore, the results of the t-test demonstrate a significance value of < 0.001 ($p < 0.05$), indicating that library facility modernization exerts a positive and statistically significant effect on the educational function at the Padang State University Library.

Figure 6. Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.842[a]	.708	.705	1.942

a. Predictors: (Constant), Modernisasi_Fasilitas_Perpustakaan_X

Figure 6. Model Summary

Figure 6 presents the model summary of the simple linear regression analysis, indicating that the correlation coefficient (R) is 0.842, which reflects a very strong relationship between library facility modernization and the educational function at the Padang State University Library. Furthermore, the coefficient of determination (R Square) is 0.708, implying that 70.8% of the variation in the library's educational function can be explained by the modernization of library facilities, while the remaining 29.2% is attributed to other factors beyond the scope of this study.

DISCUSSION

The findings of this study provide a comprehensive understanding of how the modernization of library facilities influences the educational function of the Universitas Negeri Padang Library, revealing both the strengths and the limitations of current developments in the context of academic library transformation. The results indicate that the modernization of library facilities is generally categorized as good, with a mean score of 3.23, while the educational function of the library is also categorized as good with a mean score of 3.24, suggesting that the overall condition of the library reflects a relatively balanced alignment between infrastructure development and academic service delivery (good). However, a deeper analysis of these findings reveals that the quality of modernization is not uniformly distributed across all indicators, and therefore requires a more critical interpretation to fully understand its implications for academic engagement and learning outcomes.

From the perspective of physical infrastructure, the library has successfully established an environment that supports both individual and collaborative learning activities, as evidenced by the high levels of agreement among respondents regarding the flexibility of space and the conduciveness of the learning atmosphere. This suggests that the modernization of physical facilities has effectively contributed to creating a learning environment that enhances concentration and academic productivity, which aligns with the concept of user-centered library design that prioritizes comfort and accessibility. Nevertheless, the findings also reveal that the capacity of the available space remains a significant concern, as a portion of respondents expressed dissatisfaction with the size of the study areas, indicating that the current infrastructure has not fully accommodated the increasing number of users. This imbalance between user demand and spatial capacity highlights a critical limitation in the planning of physical modernization, suggesting that improvements have been more qualitative than quantitative in nature.

In terms of technological integration, the study demonstrates that several aspects of digital services, including the circulation system, access to collection information, and internet connectivity, have been implemented effectively, reflecting a substantial shift toward a technology-driven service model. These findings are consistent with the expectations of modern academic libraries, which emphasize the integration of information technology as a core component of service delivery. However, the study also identifies a significant weakness in the usability of the Online Public Access Catalog (OPAC), which is perceived by many users as not sufficiently user-friendly. This issue is particularly important because the OPAC serves as a primary gateway for accessing library resources, and its inefficiency can hinder the overall effectiveness of information retrieval. The difficulty in using the OPAC suggests that technological modernization has not been fully optimized from the user experience perspective, thereby limiting its potential impact on enhancing academic engagement.

The analysis of digital resource access further reveals that while the library has made considerable progress in providing electronic resources such as e-books and e-journals, challenges remain in ensuring seamless access, particularly from outside the library premises. Although most respondents acknowledge the availability of digital collections, the relatively lower mean score for remote access indicates that users still encounter difficulties in accessing these resources beyond the physical boundaries of the library. This finding underscores the importance of not only expanding digital collections but also

improving the infrastructure and systems that support remote access, as accessibility is a fundamental aspect of digital library services in the contemporary academic environment. The provision of collaborative learning facilities represents one of the strongest aspects of the library's modernization efforts, as indicated by the high level of agreement among respondents regarding the effectiveness of space management in supporting group discussions without disrupting other users. This suggests that the library has successfully adopted the concept of learning commons, which emphasizes the integration of collaborative spaces within the academic library setting. The availability of such facilities reflects a shift in the role of the library from a traditional quiet study area to a dynamic learning environment that accommodates diverse learning styles, including collaborative and interactive learning.

Turning to the educational function of the library, the findings demonstrate that the library has performed well in fulfilling its role as an academic support institution, particularly in terms of providing access to relevant and sufficient information resources. The majority of respondents perceive that the available collections align with their academic needs, indicating that the library has been relatively successful in maintaining a collection that supports the curriculum. However, the presence of some negative responses suggests that there are still gaps in the comprehensiveness and relevance of certain collections, which may affect the overall effectiveness of the library in supporting academic activities. The library's contribution to the learning process is also evident in its ability to assist students in understanding course materials, completing academic assignments, and engaging in self-directed learning. These findings highlight the multifaceted role of the library as not only a provider of information but also a facilitator of learning, which is consistent with contemporary perspectives on academic libraries as active participants in the educational process. Furthermore, the study indicates that the library plays a significant role in enhancing students' information literacy, as users report that the library helps them identify credible sources, understand how to use information effectively, and improve their ability to conduct academic research. This demonstrates that the library's services extend beyond the provision of resources to include the development of essential academic skills. In addition, the library's support for research activities is reflected in its ability to provide relevant references, assist users in locating appropriate literature, and encourage independent learning. The positive responses in this area suggest that the library has successfully contributed to the development of students' research competencies, although

there is still room for improvement in terms of expanding resources and enhancing support services. Overall, these findings indicate that the educational function of the library has been implemented effectively, but not without certain limitations that need to be addressed to achieve optimal performance.

The statistical analysis further strengthens these observations by demonstrating a significant positive relationship between the modernization of library facilities and the educational function of the library, with a regression coefficient of 0.931 and a coefficient of determination of 70.8%, indicating that a substantial proportion of the variation in educational function can be explained by the level of facility modernization (). This finding confirms that improvements in library facilities have a direct and meaningful impact on the effectiveness of the library as an educational institution, reinforcing the importance of modernization as a strategic priority for academic libraries. When compared with previous studies, these findings are consistent with the work of Majid et al. (2024), which highlights the significant influence of library facilities on students' reading interest, suggesting that well-developed facilities can enhance user engagement with academic resources. However, the present study extends this perspective by demonstrating that the impact of facilities goes beyond reading interest to encompass broader aspects of educational function, including learning support, information literacy, and research activities. Similarly, the findings align with Dongoran and Febriyana (2020), who emphasize the importance of facilities and librarian services in influencing user behavior, although the current study suggests that facilities may play a more dominant role in shaping academic utilization.

The results also support the findings of Hasanuddin et al. (2024), which indicate that library facilities contribute to improved learning outcomes by enhancing access to information and supporting academic activities. Nevertheless, the present study differs from previous research in its focus on the educational function as a comprehensive construct, rather than examining isolated variables such as satisfaction or reading interest. This distinction represents a significant contribution to the literature, as it provides a more holistic understanding of the role of facilities in academic libraries. The implications of these findings are both theoretical and practical. From a theoretical perspective, the study contributes to the development of library and information science by demonstrating that facility modernization is not merely a supporting factor but a central determinant of the educational function of libraries. This highlights the need to integrate facility development with educational objectives in the conceptualization of modern academic libraries. From a

practical standpoint, the findings suggest that library management should prioritize the improvement of user experience in technological systems, particularly the OPAC, enhance the reliability of digital access, and expand the capacity of physical spaces to accommodate user demand. These improvements are essential to ensure that modernization efforts translate into meaningful enhancements in academic performance.

Despite its contributions, this study is not without limitations. The use of a quantitative approach with structured questionnaires limits the ability to capture the depth of users' experiences and perceptions, which may provide valuable insights into the nuances of library utilization. Additionally, the study is confined to a single institutional context, which restricts the generalizability of the findings to other academic libraries with different characteristics. The presence of heteroskedasticity in the regression model also indicates that the analysis may not fully satisfy the assumptions of classical statistical methods, potentially affecting the accuracy of the results. Furthermore, the study focuses on a single independent variable, thereby excluding other factors that may influence the educational function of the library, such as service quality, user motivation, and institutional support. In conclusion, the findings of this study underscore the critical role of facility modernization in enhancing the educational function of academic libraries, while also highlighting the need for a more comprehensive and user-centered approach to library development. The results suggest that modernization should not be viewed as an end in itself, but as a means to strengthen the library's role as a central component of the academic ecosystem, capable of supporting learning, research, and the development of information literacy in the digital age.

CONCLUSION

Based on the results of the research and the discussion on the influence of library facility modernization on the educational function of the library at Universitas Negeri Padang, it can be concluded that the modernization of library facilities is categorized as good, with an average score of 3.23. This finding indicates that the available facilities—covering physical infrastructure, integration of information technology, access to digital information resources, and collaborative learning spaces—are generally adequate to support the needs of library users. Nevertheless, several aspects still require improvement, particularly the capacity of learning spaces, the usability and user-friendliness of the OPAC

system, and the optimization of remote digital access outside the library. Furthermore, the educational function of the library is also categorized as good, with an average score of 3.24, suggesting that the library has been able to effectively perform its role in supporting students' academic activities through the provision of information resources, facilitation of the learning process, enhancement of information literacy, and support for research activities. These results demonstrate that the library functions relatively optimally in supporting learning activities and meeting users' information needs. In addition, the analysis reveals a positive and significant influence of library facility modernization on the educational function of the library, as evidenced by the simple regression analysis, which yielded a regression coefficient of 0.931 with a significance level of less than 0.05. The correlation coefficient of 0.842 indicates a very strong relationship, while the coefficient of determination of 0.708 shows that 70.8% of the variance in the educational function of the library is explained by the modernization of library facilities. Therefore, it can be inferred that the better the modernization of library facilities, the more optimal the educational function performed by the library. Based on these findings, several recommendations are proposed for relevant stakeholders. The library management is encouraged to continuously improve the quality of facilities, particularly by enhancing the usability of the OPAC system to make it more user-friendly and by optimizing digital access so that collections can be accessed more reliably both within and outside the library environment. Additionally, expanding the capacity and improving the comfort of learning spaces are essential to better support user activities, along with the development of more innovative, technology-based services that align with user needs. For library users, especially students, it is recommended to utilize library facilities more effectively, both physical and digital, and to enhance their information literacy skills in order to use information resources more efficiently in supporting academic activities. Finally, future researchers are advised to expand this study by incorporating additional variables that may influence the educational function of libraries, such as librarian service quality or user satisfaction, and to employ more diverse research methods as well as broader sample coverage in order to produce more comprehensive and in-depth findings.

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