

ACADEMIC SERVICE QUALITY AND ONLINE LEARNING QUALITY: THE MODERATING ROLE OF TIME PRESSURE, LEARNING MOTIVATION, AND SPIRITUAL INTELLIGENCE

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Abstract

This study was motivated by previous research indicating that online registration services, online services, final exam services, self-directed learning, and locus of control significantly influence the quality of online learning, whereas online facilities and textbook services do not have a significant effect. Based on these findings, this research was developed to measure the influence of service quality on the quality of online learning among postgraduate students at Universitas Terbuka, while considering the moderating variables of learning motivation, time pressure, and spiritual intelligence. The objective of this study is to examine the effect of satisfaction with five service dimensions—registration, online tutorial facilities, textbooks, learning activities, and final semester examinations—on the quality of online learning, with the three aforementioned moderating variables. This is a quantitative study with an empirical approach using probability sampling techniques. Data were collected through questionnaires distributed to 122 postgraduate students at Universitas Terbuka during the 2024.1 semester, located across the UPBJJ regions of Ternate, Yogyakarta, Surabaya, and Malang. Data analysis was conducted using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method with Moderated Regression Analysis (MRA). The results showed that satisfaction with registration services, online tutorial facilities, textbooks, and final exam services had a significant effect on the quality of online learning. However, learning motivation and spiritual intelligence were not proven to moderate the effects of registration services, online tutorials, learning activities, and final exam services on the quality of online learning. Furthermore, time pressure in learning also did not moderate the relationship between satisfaction with final exam services and the quality of online learning.

Keywords: *Online Learning Quality; Educational Administrative Services; Motivation; Learning Time Pressure; Spiritual Intelligence.*

1 INTRODUCTION

The development of information and communication technology (ICT) over the past two decades has brought significant changes to higher education, particularly in the context of open and distance education (ODE). The COVID-19 pandemic marked a critical turning point when almost all universities worldwide, including those in Indonesia, were forced to rapidly adopt online learning in order to ensure the continuity of academic activities. Prior to 2020, only around 15% of higher education students were enrolled in online courses, but by March 2020, 100% of students were engaged in distance learning (Bickle & Rucker, 2020).

Nevertheless, the use of online learning systems had actually begun long before the pandemic. Several universities in Indonesia—such as Universitas Terbuka (UT)—had long developed e-learning models for undergraduate and postgraduate programs. The pandemic acted as a catalyst for creativity and collaboration in advancing online learning systems, particularly challenging institutions in developing countries that lacked pre-existing digital infrastructure (Khamis et al., 2021).

In this context, Universitas Terbuka (UT) holds a highly strategic position as the only public university in Indonesia specifically mandated to provide open and distance higher education. Since its establishment in 1984, UT has been a pioneer in expanding access to higher education across the country, particularly targeting citizens from diverse geographical, social, and economic backgrounds (Zuhairi, 2020). The university has gained international recognition for its success in managing a distance education system and aims to share knowledge through ASEAN collaborations and MOOC programs (Broto, 2019). However, with increasing competition, especially from private universities that now also offer online postgraduate programs, UT faces serious challenges in maintaining student loyalty and sustaining enrollment rates.

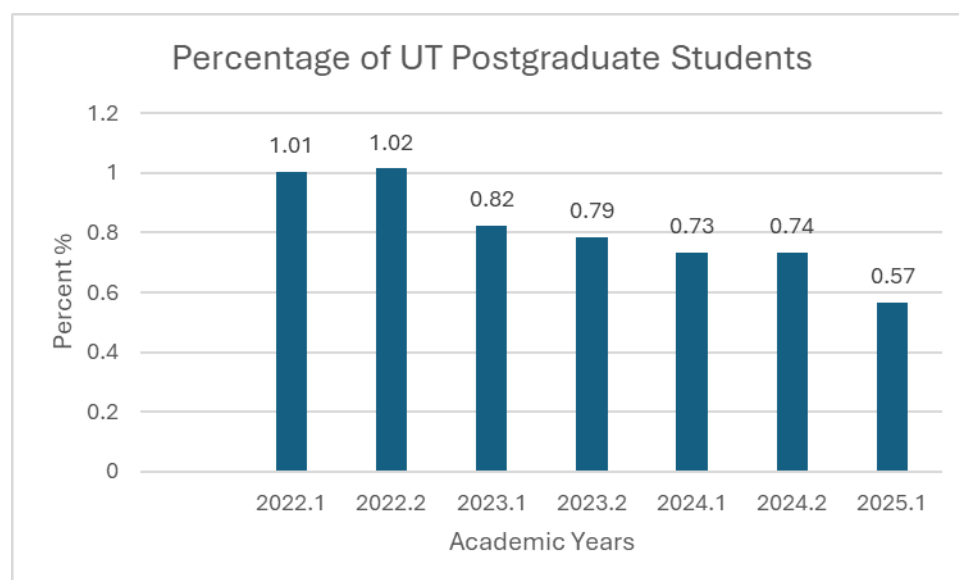


Figure 1. Percentage of UT Postgraduate Students compared to the total number of UT students

The graph illustrates the declining trend in the percentage of graduate students at Universitas Terbuka (UT) from the 2022 to the 2025 academic years. At the beginning of the period, namely the Odd and Even semesters of 2022, the percentage of students was above 1%

(1.01% and 1.02%, respectively). However, starting in 2023, a significant decrease occurred, with 0.82% in the Odd semester and 0.79% in the Even semester. This downward trend continued in 2024, ranging between 0.73% and 0.74%, reaching its lowest point in the Odd semester of 2025 at 0.57%. This decline may indicate challenges in attracting new prospective students or retaining existing graduate students at UT, whether due to competition among universities, the need for curriculum adjustments, or the appeal of the study programs offered. This analysis suggests that UT must strengthen its promotional strategies, curriculum innovation, and academic support services in order to increase the number of graduate students in the future.

The quality of services in higher education is an important issue that has been widely studied. Drawing on the SERVQUAL framework, numerous studies have shown that aspects of tangibility, reliability, responsiveness, assurance, and empathy significantly influence student satisfaction. In the Indonesian context, research by Susanto (2014) demonstrated that the quality of academic services strongly affects the satisfaction of UT postgraduate students in Mataram. This finding reinforces the notion that service quality can have a direct impact on student loyalty (Hendri & Robyardi, 2019; Wijayanti, 2023). Other studies even highlight that in the digital era, administrative services such as registration systems, online tutorial facilities, the availability of learning materials, and the administration of final examinations play an equally important role as academic service quality. If the registration process is slow or online platforms are unreliable, student trust will decline. Conversely, fast, responsive, and efficient services can enhance the learning experience and foster student loyalty toward the institution. Time pressure in learning also becomes a highly significant factor, especially for postgraduate students who often hold dual or even multiple roles as workers, family members, and learners simultaneously. This condition creates time constraints that may reduce their engagement in online learning. At the same time, however, time pressure can also strengthen the need for efficient administrative services, enabling students to fulfill their academic obligations effectively. On the other hand, spiritual intelligence offers a different perspective. Spiritual intelligence is related to an individual's ability to find meaning, purpose, and resilience when facing challenges (Pedhu, 2022). In the context of education, this intelligence can influence how students respond to service limitations or system constraints, as well as the extent to which they remain committed to their institution despite obstacles.

Nevertheless, studies on the role of motivation moderation, time pressure, and spiritual intelligence in the relationship between administrative service quality and online learning outcomes remain very limited, both in Indonesia and globally. Previous research has largely focused on the academic service dimension, while administrative services—which in fact constitute the backbone of the online learning experience—have received relatively little attention (Pambudi, 2018). Furthermore, although analytical methods such as Structural Equation Modeling (SEM-PLS) and Moderated Regression Analysis (MRA) can provide comprehensive insights, these approaches are still rarely applied in studies on service quality in Indonesian higher education (Debora & Hernadewita, 2019).

This study seeks to address the existing gap by examining the determinants of administrative service quality and their influence on the quality of online learning among postgraduate students at Universitas Terbuka. The research focus is not limited to core service dimensions such as registration, online tutorial facilities, the availability of learning materials, learning activities, and the administration of final examinations, but also extends to how motivation, time pressure in learning, and spiritual intelligence moderate these relationships. Accordingly, this study contributes to the expansion of the theoretical framework on service quality in higher education while also providing practical recommendations for Universitas Terbuka and other universities aiming to enhance the quality of administrative services in online learning systems.

2 METHODOLOGY

2.1 Research Design and Sample Population

This study employs a quantitative approach with an explanatory design to analyze the influence of administrative service quality on the quality of online learning among postgraduate students at Universitas Terbuka, with motivation, time pressure in learning, and spiritual intelligence serving as moderating variables. This design was chosen because it is appropriate for explaining causal relationships among variables through the testing of predetermined hypotheses.

The research population consists of all postgraduate students at Universitas Terbuka who were actively enrolled during the registration period of the 2024.1 academic year. Based on data from four Distance Learning Program Units (UPBJJ)—Ternate, Yogyakarta, Surabaya, and Malang—the total population recorded was 608 students. From this population, a research sample of 122 students, or approximately 20% of the total population, was determined. The

sampling technique employed a non-probability sampling approach with purposive sampling, namely the selection of respondents who met specific criteria such as active participation in the postgraduate program and engagement in online learning activities.

2.2 Instrument and Data Collection

The research data are primary in nature and were collected through an online questionnaire (Google Form) designed with a five-point Likert scale, ranging from “strongly disagree” to “strongly agree.” The instrument covers the independent variable, namely the quality of administrative services, which consists of five main dimensions: registration services, online tutorial facilities, the availability of core textbooks, learning activities, and final examination services. The dependent variable is the quality of online learning, while the moderating variables are learning motivation, time pressure in learning, and spiritual intelligence.

Before being administered, the questionnaire was pilot-tested on 40 postgraduate students at Brawijaya University. The results of the convergent validity test indicated that most indicators had loading factor values above 0.70, thereby confirming their validity, although some indicators were eliminated. The reliability test using Cronbach’s Alpha and Composite Reliability also showed values above 0.70 for all constructs, indicating that the instrument employed is reliable.

The data collection process was carried out by distributing questionnaires to 122 respondents across four UPBJJ. All the distributed questionnaires were successfully returned in complete form, resulting in a 100% response rate. This high level of participation strengthens the validity of the data obtained and allows the analysis to be conducted in a more representative manner.

2.3 Data Analysis Techniques

The collected data were analyzed using Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with the assistance of SmartPLS version 4 software. The analysis stages included the evaluation of the measurement model (outer model) to assess construct validity and reliability, as well as the evaluation of the structural model (inner model) to examine the relationships among variables. Convergent validity was assessed through the values of factor loadings and average variance extracted (AVE), while reliability was measured using Cronbach’s Alpha and Composite Reliability.

Hypothesis testing was conducted using the bootstrapping technique to obtain the t-statistics and p-value. A hypothesis is considered accepted if the t-statistics ≥ 1.96 at the 5%

significance level ($p < 0.05$). Moderation analysis was carried out using Moderated Regression Analysis (MRA) to assess whether motivation, time pressure, and spiritual intelligence strengthen or weaken the influence of administrative service quality on the quality of online learning. With this methodological design, the study is expected to produce valid and reliable findings while also addressing the research questions concerning the determinants of administrative service quality and the role of moderating variables in enhancing the quality of online learning among postgraduate students at Universitas Terbuka.

3 FINDINGS AND DISCUSSION

3.1 Findings

Data collection was carried out through the distribution of an online questionnaire to 122 postgraduate students of Universitas Terbuka across four UPBJJ locations: Ternate, Yogyakarta, Surabaya, and Malang. All questionnaires were returned in complete form, resulting in a 100% response rate. The high level of respondent participation indicates that postgraduate students are concerned with the topic of administrative services measured in this study, while also strengthening the validity of the data obtained. Methodologically, a perfect response rate is rarely found in social research, making this condition a distinct advantage for the present study. This allows the analysis to be conducted with a high degree of confidence while also providing a fairly representative picture of students' perceptions of administrative services at Universitas Terbuka.

Descriptive analysis provides an overview of students' responses to the dimensions of administrative services. The results indicate that the average responses tend to fall within the medium to high categories, with notable variations across certain dimensions. Registration services obtained an average score of 0.457 with a standard deviation of 0.079, online learning facilities 0.466 with a standard deviation of 0.114, availability of core textbooks 0.387 with a standard deviation of 0.160, learning activities 0.879 with a standard deviation of 0.116, final examination services 0.830 with a standard deviation of 0.095, and learning motivation 0.513 with a standard deviation of 0.043. The relatively high averages in the dimensions of learning activities and final examination services suggest that these aspects were rated most positively by students. Conversely, the low score for the availability of core textbooks indicates significant room for improvement, particularly since the provision of learning materials is one of the key indicators of the success of online learning.

The results of the validity and reliability tests confirm that the research instrument meets the feasibility standards. Most indicators show loading factor values above 0.70 and AVE values above 0.50, thereby indicating validity. Indicators that did not meet the criteria were eliminated to maintain the consistency of the model. The reliability test also produced satisfactory results, with Cronbach's Alpha and Composite Reliability values exceeding 0.70 for all constructs. This confirms that the instrument used has good internal consistency, ensuring that the analysis results are reliable. Accordingly, the data obtained can be further processed using SEM-PLS to test the structural model and research hypotheses.

Hypothesis testing using SEM-PLS revealed that the quality of administrative services has a significant influence on the quality of students' online learning. Registration services, online tutorial facilities, the availability of core textbooks, and final examination services all showed positive regression coefficients with t-statistics greater than 1.96 at the 5% significance level. This indicates that the better the administrative services provided, the higher the quality of online learning perceived by students. However, not all moderating variables produced consistent results. Learning motivation and spiritual intelligence were found not to moderate most of the relationships between administrative services and online learning quality. In contrast, time pressure demonstrated a significant moderating effect, particularly on registration services, the availability of learning materials, and learning activities. These findings suggest that students' psychosocial context plays a crucial role in shaping how administrative services are perceived and utilized in online learning.

Table 1. Hypothesis Testing Results.

Variable	Description	B	Mean	STDEV	T	P Values	Description
Registration	Registration → Online Learning Quality	0.453	0.457	0.079	5.760	0.000	Accepted
	Registration_KS → Online Learning Quality	0.379	0.375	0.059	6.384	0.000	Accepted
	Registration_MB → Online Learning Quality	0.036	0.034	0.046	0.792	0.429	Rejected
Online Learning Facilities	Registration_TWP → Online Learning Quality	0.438	0.428	0.063	6.950	0.000	Accepted
	Online Learning Facilities → Online Learning Quality	0.473	0.466	0.114	4.146	0.000	Accepted
	Online Learning Facilities_KS → Online Learning Quality	0.110	0.111	0.115	0.959	0.338	Rejected
	Online Learning Facilities_MB → Online Learning Quality	0.007	0.007	0.062	0.109	0.913	Rejected

	Online Learning Facilities_TWP → Online Learning Quality	0.442	0.431	0.173	2.558	0.011	Accepted
Main Material Book	Main Material Book → Online Learning Quality	0.367	0.387	0.160	2.288	0.230	Accepted
	Main Material Book_KS → Online Learning Quality	0.247	0.236	0.117	2.119	0.035	Accepted
	Main Material Book_MB → Online Learning Quality	0.210	0.199	0.109	1.923	0.055	Rejected
	Main Material Book_TWP→ Online Learning Quality	0.262	0.251	0.120	2.186	0.029	Accepted
Learning Activities	Learning Activites → Online Learning Quality	0.884	0.879	0.116	7.648	0.000	Accepted
	Learning Activites_KS → Online Learning Quality	0.113	0.103	0.095	1.182	0.238	Rejected
	Learning Activites_MB → Online Learning Quality	0.088	0.083	0.103	0.854	0.394	Rejected
	Main Material Book_TWP→ Online Learning Quality	0.190	0.177	0.076	2.500	0.013	Accepted
Final Exam Service	Final Exam Service → Online Learning Quality	0.820	0.830	0.095	8.831	0.000	Accepted
	Final Exam Service_KS → Online Learning Quality	0.089	0.091	0.053	1.694	0.091	Rejected
	Final Exam Service_MB → Online Learning Quality	0.092	0.098	0.068	1.362	0.174	Rejected

3.2 Discussion

The finding that registration services, online tutorials, the availability of learning materials, and final examinations have a significant impact on students' learning quality reinforces the literature emphasizing the importance of administrative services in distance higher education. This is consistent with previous studies, which argue that service quality not only affects satisfaction but also student loyalty to the institution. At Universitas Terbuka (UT), administrative services serve as the main entry point for student–institution interaction, with front-desk services helping to resolve study-related issues for more than 1,000 students annually (Pandapotan & Andayani, 2019). Therefore, poor service quality at the initial stage, such as registration, has the potential to reduce learning motivation, even when the academic quality or tutorials provided are actually sufficient. Conversely, efficient administrative services can enhance students' trust and strengthen positive perceptions of the university as a whole.

The persistence of students at UT is significantly influenced by the quality of services, with administrative services reaching a satisfaction level of 87.94% across six main service areas, including registration, tutorials, and examinations, although there remains a satisfaction gap of 12.11% (Lince & Zaidin, 2021). Studies indicate that while academic services have a significantly positive effect on student satisfaction, administrative services may have a

negative impact when examined individually. However, when combined, administrative and academic services significantly influence student satisfaction simultaneously.

Interestingly, learning motivation, which is theoretically considered an important variable, did not show a significant moderating effect. This can be explained by the characteristics of UT postgraduate students, who generally have clear learning objectives, whether for career development or academic achievement. For distance learning students at Universitas Terbuka (UT), motivation plays a crucial role in utilizing learning support services, shaped by personal interests, academic demands, family support, learning independence, and peer environment (Novrianda & Mikaresti, 2024). This relatively stable motivation keeps them committed even when administrative services are not fully optimal. In other words, the internal motivation of UT postgraduate students is more strongly determined by long-term personal and professional orientations rather than the technical quality of administrative services. These findings challenge the classical assumption in motivation theory that external factors always reinforce internal motivation in learning contexts.

Spiritual intelligence was also not found to be a significant moderator. This indicates that the spiritual dimension of students has not been fully connected to their perceptions of administrative services (Haryanto, 2023). One possible explanation is that spiritual intelligence is more closely related to how individuals manage the meaning of life, values, and resilience in facing personal challenges, rather than in assessing technical aspects such as the speed of registration or the availability of core learning materials (Sarnoto & Rahmawati, 2019). Nevertheless, this does not mean that spiritual intelligence is entirely irrelevant in the context of online learning. On the contrary, this finding opens opportunities for further research to explore how spiritual values can be integrated into student support strategies, for instance, through value-based counseling programs or curricula that place greater emphasis on personal reflection.

In contrast to motivation and spiritual intelligence, time pressure in learning has been proven to have a significant moderating effect on several dimensions of administrative services. Graduate students who must divide their time between work, family, and study demonstrate greater sensitivity to service efficiency. For instance, when the registration system runs smoothly and learning materials are easily accessible, students under time pressure tend to perceive greater benefits compared to those without time constraints. Conversely, when administrative services are slow or inefficient, the negative impact on learning quality is felt

more strongly by students facing high time pressure. This supports the findings of Mustofa et al. (2019), which emphasize the importance of flexible and adaptive online services for students with multiple roles. These findings affirm that Universitas Terbuka needs to pay particular attention to designing administrative systems that are responsive to students with limited time.

Overall, the findings of this study carry significant theoretical and practical implications. From a theoretical perspective, this research extends the understanding of administrative service quality by incorporating psychosocial moderating variables, thereby producing a more comprehensive analytical framework. From a practical standpoint, the study underscores the need for Universitas Terbuka to position administrative services as a strategic priority in maintaining student loyalty. Strengthening the online registration system, enhancing the accessibility of digital learning materials, and organizing more adaptive final examinations are concrete measures that can be implemented. In this way, Universitas Terbuka can not only sustain its position as a pioneer of distance education in Indonesia but also enhance its competitiveness at the global level in the era of digital transformation in higher education.

4 CONCLUSION

The findings of this study affirm that the quality of administrative services has a significant influence on the quality of online learning among postgraduate students at Universitas Terbuka. Service dimensions such as registration, online tutorial facilities, the availability of core textbooks, and the administration of final semester examinations have been proven to contribute positively to enhancing students' perceptions of the quality of learning they receive. This indicates that administrative services are not merely technical in nature but also strategic in shaping students' learning experiences. When administrative services are carried out promptly, efficiently, and accurately, students feel more comfortable and develop greater trust in the institution, which in turn enhances their loyalty and academic success. These findings further reinforce previous literature that emphasizes the importance of integrating academic and administrative services as a unified system of higher education quality assurance.

On the other hand, this study found that learning motivation and spiritual intelligence did not provide a significant moderating effect in the relationship between administrative services and the quality of online learning. This can be interpreted to mean that graduate students at Universitas Terbuka generally possess relatively stable intrinsic motivation and a strong

academic orientation, so the quality of administrative services does not directly influence the intensity of that motivation. Similarly, spiritual intelligence, which is more related to the reflective and affective aspects of students, plays a lesser role in shaping their perceptions of technical administrative services. In contrast, time pressure in learning was found to be a significant moderating variable, particularly in relation to registration services, the availability of learning materials, and learning activities. Students facing time constraints are more sensitive to the quality of administrative services, so efficient services will have a greater impact on this group.

These findings carry significant theoretical and practical implications. Theoretically, this study enriches the discourse on the quality of higher education services by integrating psychosocial factors as moderating variables. This broadens the understanding of how service quality is perceived in the context of distance education while contributing to the development of the SERVQUAL theory within the academic domain. Practically, Universitas Terbuka needs to strengthen its online administrative system to be more responsive to students with limited time, for instance by improving the reliability of the registration platform, accelerating the distribution of digital learning materials, and implementing more adaptive final examinations. Through these strategies, UT can reinforce its position as a pioneer of distance education in Indonesia while simultaneously enhancing its competitiveness at the global level.

REFERENCES

- Bickle, M. C., & Rucker, R. D. (2020). COVID-19 and higher education: Changing adoption rates of online learning. *Journal of Online Higher Education*, 2(4), 3–10.
- Broto, M. F. (2019). Sharing Knowledge Through Open And Distance E-Learning Education: Globalizing Universitas Terbuka. *Jurnal Pendidikan Terbuka Dan Jarak Jauh*, 20(1), 1. <https://doi.org/10.33830/ptjj.v20i1.795.2019>
- Debora, F., & Hernadewita, H. (2019). Pengaruh Kualitas Pelayanan dan Kualitas Pembelajaran Terhadap Kepuasan Mahasiswa Dengan Metode SEM-PLS. *Operations Excellence: Journal of Applied Industrial Engineering*, 11(1), 49. <https://doi.org/10.22441/oe.v.10.3.2018.015>
- Haryanto, S. (2023). Urgensi Kecerdasan Spiritual dalam Pencegahan Stres Pendekatan Bimbingan dan Konseling. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 7(6), 8000–8008. <https://doi.org/10.31004/obsesi.v7i6.5904>

- Hendri, E., & Robyardi, E. (2019). Kajian Empiris Kualitas Layanan Terhadap Loyalitas Yang Dimediasi Oleh Kepuasan Mahasiswa (Studi Kasus pada UPT Perpustakaan Universitas PGRI Palembang). *Jurnal Media Wahana Ekonomika*, 15(4), 1. <https://doi.org/10.31851/jmwe.v15i4.3049>
- Khamis, T., Naseem, A., Khamis, A., & Petrucka, P. (2021). The COVID-19 pandemic: a catalyst for creativity and collaboration for online learning and work-based higher education systems and processes. *Journal of Work-Applied Management*, 13(2), 184–196. <https://doi.org/10.1108/JWAM-01-2021-0010>
- Lince, R., & Zaidin, M. A. (2021). Persepsi Mahasiswa Terhadap Daya Tahan Kuliah Di Universitas Terbuka. *Jurnal Studi Guru Dan Pembelajaran*, 4(3), 692–706. <https://doi.org/10.30605/jsgp.4.3.2021.1433>
- Mustofa, M. I., Chodzirin, M., Sayekti, L., & Fauzan, R. (2019). Formulasi Model Perkuliahan Daring Sebagai Upaya Menekan Disparitas Kualitas Perguruan Tinggi. *Walisongo Journal of Information Technology*, 1(2), 151. <https://doi.org/10.21580/wjit.2019.1.2.4067>
- Novrianda, H., & Mikaresti, P. (2024). Motivasi dalam Pemanfaatan Layanan Pembelajaran. *Journal on Teacher Education*, 5(4), 41–47. <https://doi.org/10.31004/jote.v5i4.24660>
- Pambudi, B. A. (2018). Hubungan Penggunaan Jaringan Internet, Pelayanan Administratif, Minat Dan Motivasi Belajar Dengan Prestasi Mahasiswa. *Jurnal Manajemen Dan Supervisi Pendidikan*, 2(3), 159–168. <https://doi.org/10.17977/um025v2i32018p159>
- Pandapotan, S., & Andayani, T. (2019). Peran Front Desk dalam Peningkatan Pelayanan Prima di Unit Program Belajar Jarak Jauh, Universitas Terbuka Medan. *Journal of Education, Humaniora and Social Sciences (JEHSS)*, 2(1). <https://doi.org/10.34007/jehss.v2i1.73>
- Pedhu, Y. (2022). Analisis korelasional antara kecerdasan spiritual dan resiliensi psikologis mahasiswa seminaris. *JPPI (Jurnal Penelitian Pendidikan Indonesia)*, 8(3), 597. <https://doi.org/10.29210/020221833>
- Sarnoto, A. Z., & Rahmawati, S. T. (2019). Kecerdasan Spiritual Perspektif Al-Qur'an. *Madani Institute : Jurnal Politik, Hukum, Ekonomi, Pendidikan Dan Sosial-Budaya*, 9(2), 62–73. <https://doi.org/10.53976/jmi.v9i2.209>
- Susanto, H. (2014). Pengaruh Layanan Akademik Terhadap Kepuasan Mahasiswa Program Pascasarjana Universitas Terbuka Pada Unit Program Belajar Jarak Jauh (UPBJJ)

- Mataram. *Jurnal Pendidikan Terbuka Dan Jarak Jauh*, 15(2), 88–98.
<https://doi.org/10.33830/ptjj.v15i2.592.2014>
- Wijayanti, D. R. (2023). Pengaruh Kualitas Pelayanan Terhadap Loyalitas Mahasiswa Dengan Variabel Mediasi Kepuasan Mahasiswa. *Al-Muttaqin : Jurnal Studi, Sosial, Dan Ekonomi*, 4(2), 215–228. <https://doi.org/10.63230/almuttaqin.v4i2.119>
- Zuhairi, A. (2020). The Operational Aspects Of Open And Distance Learning And Its Quality Assurance System In Universitas Terbuka. *Jurnal Pendidikan Terbuka Dan Jarak Jauh*, 20(2), 74–89. <https://doi.org/10.33830/ptjj.v20i2.122.2019>