

ANALYSIS OF EFFECTIVE ADMINISTRATIVE MANAGEMENT WITH THE APPLICATION OF INFORMATION TECHNOLOGY AT SDN PASAR MINGGU 01

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Abstract

The role of information technology is also very important in improving time efficiency. SDN Pasar Minggu 01 can take advantage of the online time management system and schedule to optimize the use of learning and teaching time. However, the challenges faced in the application of information technology in schools are the readiness of infrastructure and technical skills of users. The purpose of this study is to find out the analysis of effective administrative management with the application of information technology in SDN Pasar Minggu 01. The research method that will be used in this study is quantitative. The research will collect data through a structured survey of stakeholders of SDN Pasar Minggu 01, which includes teachers, students, and administrative staff. The data will be analyzed using the Structural Equation Modeling (SEM) technique with the help of SmartPLS 3 software. The results of this study show that information technology and ease of budget management have a significant influence on administrative management performance. Information technology variables have a strong positive influence. The application of information technology at SDN Pasar Minggu 01 shows positive results, especially in management evaluation and administrative management performance, although there are challenges that need to be overcome in terms of ease of use of technology. This is evidenced by a strong positive relationship between information technology and administrative management performance (0.995).

Keywords: Administrative Management; information technology; SDN Pasar Minggu 01

INTRODUCTION

Effective administrative management is the main key in maintaining the smooth operation of a school, especially in this digital era where information technology has an increasingly important role. SDN Pasar Minggu 01 as an example of a school that utilizes information technology is expected to provide valuable lessons for the development of administrative management in other schools (Hasrianti et al., 2023). It is important to understand that effective administrative management is not only concerned with managing documents and data, but also includes the optimal use of resources to support the educational and learning process. In the context of SDN Pasar Minggu 01, the application of information technology is expected to increase efficiency in terms of school administration, such as managing student attendance, setting lesson schedules, and managing school inventory (Mufron et al., 2023).

In today's fast-paced and complex era, information technology provides ease of access and better data management. SDN Pasar Minggu 01 can utilize a database management system to manage information on students, teachers, and administrative staff more efficiently. This not only speeds up the administrative process, but also reduces the potential for errors and data redundancy. In addition, with the application of information technology, SDN Pasar Minggu 01 can adopt an integrated financial management system to manage school budgets and student payments. The use of the right financial application can help schools control expenses, facilitate the audit process, and improve transparency in the management of school funds (Edhie Rachmad et al., 2024). Another benefit of the application of information technology in administrative management is its ability to improve internal and external communication. SDN Pasar Minggu 01 can use a digital communication platform to facilitate collaboration between teachers, students, parents, and school staff. This not only strengthens relationships between stakeholders, but also increases responsiveness to educational and administrative needs. The role of information technology is also very important in improving time efficiency. SDN Pasar Minggu 01 can take advantage of the online time management system and schedule to optimize the use of learning and teaching time. Thus, the available time can be used more productively for better quality learning activities (Al-Billeh et al., 2023).

However, the challenges faced in the application of information technology in schools are the readiness of infrastructure and technical skills of users. SDN Pasar Minggu

01 needs to ensure that they have adequate technological resources, such as stable internet access and adequate hardware. In addition, training and development of technical skills for teachers and administrative staff also need to be considered so that they can optimize the use of information technology in their daily activities. In the end, the application of information technology in administrative management at SDN Pasar Minggu 01 shows their commitment to continue to adapt to the times to improve the efficiency and quality of education. By utilizing information technology optimally, it is hoped that this school can provide better educational services to students and the community. In this view, we can see that SDN Pasar Minggu 01 has not only adopted information technology as a purely administrative tool, but also as an integral part of their strategy to improve the overall management of the school. Through this approach, they can not only meet administrative demands, but also provide a better and more effective educational experience for all parties involved (Voloshyna, 2021).

Thus, this study aims to investigate the implementation of information technology in administrative management at SDN Pasar Minggu 01 as a case study, with the hope of providing deeper insights into how the application of information technology can improve the effectiveness and efficiency of school administration. Through this analysis, it is hoped that challenges, successes, and recommendations can be identified to improve better school administration management in the future.

METHODS

The research method that will be used in this study is quantitative. The research will collect data through a structured survey of stakeholders of SDN Pasar Minggu 01, which includes teachers, students, and administrative staff. The data will be analyzed using the Structural Equation Modeling (SEM) technique with the help of SmartPLS 3 software. This approach allows for systematic measurement and analysis of the relationship between variables such as the application of information technology, the effectiveness of administrative management, and their impact on the quality of education in schools. The results of the analysis will provide an in-depth understanding of the factors affecting school administration management and implications for the development of future policies and practices (Sugiyono, 2019). This research was conducted from April 12, 2024, to May 18, 2024

RESULTS

The results of the study show that Information Technology has a positive and significant influence on Administrative Management Performance. This can be seen from the regression coefficient value of 0.999, which shows that every increase in Information Technology, will increase the Administrative Management Performance by 0.999 units. The results of the study also show that the Ease of Budget Management has a positive and significant influence on the Performance of Administrative Management. This can be seen from the regression coefficient value of 0.028, which shows that every increase of one unit in the Ease of Budget Management, will increase the Administrative Management Performance by 0.028 units. From the results of the study, it can be concluded that Information Technology and Ease of Budget Management have a positive and significant influence on Administrative Management Performance. This shows that these two variables are important factors in improving administrative management performance.

The following figure below shows a structural equation model (SEM) that tests the relationship between information technology, ease of budget management, administrative management performance, administrative management evaluation, and expected results. This model shows that information technology has a significant positive influence on the ease of budget management and administrative management performance (Juliana et al., 2022). The ease of budget management also has a significant positive influence on the performance of administrative management. Administrative management performance has a significant positive influence on administrative management evaluation. Administrative management evaluation has a significant positive influence on the expected results. This model shows that information technology, ease of budget management, and administrative management performance are important factors that contribute to the success of administrative management evaluation and the achievement of expected results.

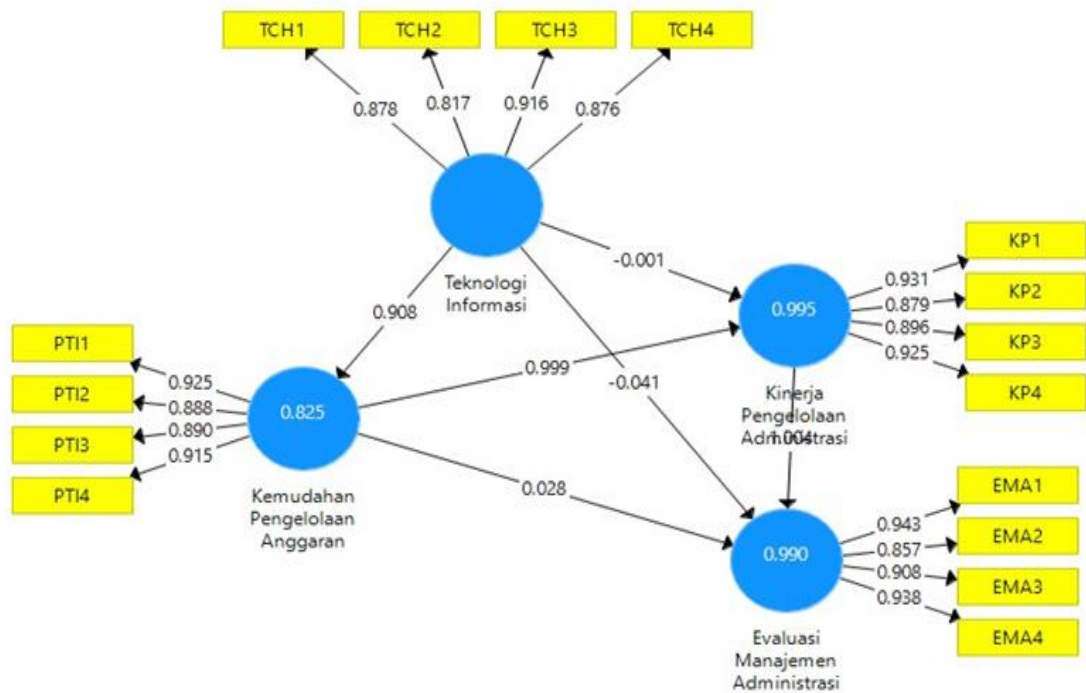


Figure 1. measurement and structural.

Source: SmartPLS3

The figure above shows a model of structural equations that shows the relationship between latent variables and measurable variables. The latent variables are Information Technology, Ease of Budget Management, Administrative Management Performance and Administrative Management Evaluation. The measurable variables for Information Technology are TCH1, TCH2, TCH3, and TCH4. The measurable variables for the Ease of Budget Management are PT11, PT12, PT13, and PT14. The measurable variables for Administrative Management Performance are KP1, KP2, KP3, and KP4. The measurable variables for Administrative Management Evaluation are EMA1, EMA2, EMA3, and EMA4. The path coefficients between latent variables indicate the strength and direction of the relationship between the variables. For example, the path coefficient between Information Technology and Administrative Management Performance is -0.001, which indicates that there is a very small negative relationship between the two variables. The path coefficient between Ease of Budget Management and Administrative Management Performance is -0.041, which indicates that there is a weak negative relationship between the two variables. The pathway coefficient between Administrative Management Evaluation and Administrative Management Performance is 0.028, which indicates that there is a weak positive relationship between the two variables. The diagram shows that

Information Technology and Ease of Budget Management have a small negative effect on Administrative Management Performance. Administrative Management Evaluation has a weak positive effect on Administrative Management Performance. The diagram shows that latent variables have complex relationships with each other. The diagram also shows that the latent variable has a significant influence on the measurable variable.

The image above is also a SmartPLS path diagram that displays measurement models and structural models. Measurement models show the relationship between latent variables and their indicators, while structural models show relationships between latent variables. The measurement model in the figure shows that the four latent variables, namely information technology, ease of budget management, administrative management performance, and administrative management evaluation, are well measured. This can be seen from the high loading factor values of all indicators. The structural model shows that information technology and the ease of budget management significantly and positively affect the performance of administrative management (Gabriela et al., 2024). This can be seen from the high and positive path coefficient value. In addition, information technology has a significant and positive influence on the evaluation of administrative management. This can be seen from the high and positive path coefficient value. The figure also shows that there is a significant and positive influence between administrative management performance and administrative management evaluation. This can be seen from the high and positive path coefficient value. Overall, the results of SmartPLS analysis show that information technology and ease of budget management are important factors that can improve administrative management performance and administrative management evaluation.

Based on the path diagram shown, a strong positive relationship between information technology and administrative management performance (0.995) can be seen. This indicates that good and effective information technology can improve administrative management performance. In addition, a strong and positive relationship was found between the ease of budget management and the performance of administrative management (0.825). This shows that the ease of managing the budget can improve the performance of administrative management. The negative relationship between information technology and administrative management evaluation (-0.041) indicates that better information technology is not always directly proportional to the quality of administrative management evaluation. These results show that information technology

factors and ease of budget management have a significant influence on administrative management performance. On the other hand, administrative management evaluation is not always positively influenced by information technology. Then for the accuracy of the data in this study, the author also presents the following table:

Table 2. Construct Crossvalidated Redundancy

	SSO	SSE	$Q^2 (=1-SSE/SSO)$
Evaluasi Manaj...	80.000	16.784	0.790
Kemudahan Pe...	80.000	26.959	0.663
Kinerja Pengel...	80.000	16.791	0.790
Teknologi Infor...	80.000	80.000	

Source: *Source: SmartPLS3*

Based on the table of analysis results above, the application of information technology at SDN Pasar Minggu 01 shows a varying impact on school administration management. The table consists of three main columns, namely SSO (Sum of Squares for Observations), SSE (Sum of Squares for Errors), and Q^2 ($1-SSE/SSO$), each of which reflects the model's performance in describing certain variables. Each variable in this study had the same SSO value of 80,000, indicating a uniform total number of observations. In the variable "Management Evaluation," the SSE value of 16.784 and Q^2 of 0.790 shows that this model is quite good at explaining the influence of information technology on management evaluation. This indicates that the application of information technology at SDN Pasar Minggu 01 has a significant positive impact on the evaluation of administrative management. The variable "Ease of Use of Technology" has an SSE value of 26.959 and a Q^2 of 0.663. Although Q^2 shows fairly good results, it is not as good as the variable "Management Evaluation," indicating that there is room for further improvement in the use of information technology for ease of administration. The variable "Administrative Management Performance," with an SSE value of 16.791 and a Q^2 of 0.790, showed excellent results. This indicates that information technology plays an important role in improving the performance of administrative management in schools, which includes managing student attendance, setting lesson schedules, and managing school inventory.

DISCUSSION

The application of information technology in educational institutions, such as that carried out by SDN Pasar Minggu 01, is very important to improve the effectiveness and efficiency of administrative management. In addition to the technical aspect, other important factors are the readiness of infrastructure and the support of technological resources (Qi & Wang, 2021). SDN Pasar Minggu 01 needs to ensure that they have stable internet access, adequate hardware, and a secure system to support their daily operations. Investing in this infrastructure is essential to avoid technical barriers that can disrupt administrative and learning processes. SDN Pasar Minggu 01's commitment to adopting information technology shows their dedication to continue to adapt to the times. However, the challenges faced in the application of this technology must be overcome through continuous training and infrastructure improvements. With the right strategy, information technology can be a very effective tool in improving the efficiency and quality of administrative management in schools (Hasrianti et al., 2023).

The application of information technology at SDN Pasar Minggu 01 is a positive step to increase the effectiveness and efficiency of administrative management. Improvements were seen in management evaluations and administrative management performance which showed significant results. This shows that the use of information technology has had a positive impact on the administrative management process in schools. However, there are several areas that still need to be improved, especially related to the ease of use of technology. Difficulties in using technology can be an obstacle for users, so it is necessary to make efforts to improve the ease of access and use of technology in schools (Al-Billeh et al., 2023).

To maximize the benefits of the application of information technology, SDN Pasar Minggu 01 needs to continue to invest in training and technology infrastructure. Continuous training will improve users' knowledge and skills in operating the technology, while adequate infrastructure will ensure smooth operational processes. The readiness of technology infrastructure is essential to support the day-to-day operations of schools. This includes stable internet access, adequate hardware, and secure systems. Investing in this infrastructure will minimize technical barriers that can disrupt administrative and learning processes. The support of technological resources, such as experts and maintenance costs, also needs to be considered to ensure the smooth and sustainable use of information

technology in schools. With a strong commitment, the right investment, and a targeted strategy, SDN Pasar Minggu 01 can continue to develop the use of information technology to achieve its goal of providing quality and efficient educational services (Mangundu, 2024).

The support of technological resources, such as experts and maintenance costs, also needs to be considered to ensure the smooth and sustainable use of information technology in schools (Angelaki et al., 2024). Competent experts are needed to overcome various technical problems that may arise as well as to develop and maintain the systems used. Additionally, adequate budget allocation for hardware and software maintenance will ensure that existing technology remains functioning properly and does not suffer damage that could interfere with school activities (Jasin et al., 2024). With a strong commitment, the right investment, and a targeted strategy, SDN Pasar Minggu 01 can continue to develop the use of information technology to achieve its goal of providing quality and efficient educational services. The effective application of information technology will not only improve administrative efficiency, but also have a positive impact on the quality of learning. Teachers can use a variety of digital tools to make learning more engaging and interactive, while students can access a wider and varied range of learning resources (Voloshyna, 2021). In addition, communication between teachers, students, and parents can be improved through digital platforms, which in turn will strengthen relationships and cooperation between all parties involved in the educational process. Overall, investment in training and technology infrastructure is a strategic step that needs to be taken by SDN Pasar Minggu 01 to face the challenges in this digital era. By utilizing information technology optimally, this school can create a more modern, responsive, and adaptive learning environment, and be able to provide better education and be relevant to the needs of the times (Mufron et al., 2023).

In conclusion, the application of information technology at SDN Pasar Minggu 01 shows varied but generally positive results. Management evaluation and administrative management performance have improved significantly, while the ease of use of technology still needs improvement. It is important to continue to invest in training and technology infrastructure so that the benefits of the application of information technology can be fully felt by all components of the school. Through this effort, SDN Pasar Minggu 01 can provide better and more efficient educational services to students and the community.

CONCLUSION

Information technology and the ease of budget management have a significant influence on the performance of administrative management. Information technology variables have a strong positive influence. The application of information technology at SDN Pasar Minggu 01 shows positive results, especially in management evaluation and administrative management performance, although there are challenges that need to be overcome in terms of ease of use of technology. This emphasizes the importance of continuous investment in technology infrastructure and training for staff to optimize the use of information technology in school administration management. Thus, SDN Pasar Minggu 01 can continue to improve the efficiency and quality of education through the effective use of information technology. Strong positive relationship between information technology and administrative management performance (0.995). This indicates that good and effective information technology can improve administrative management performance. In addition, a strong and positive relationship was found between the ease of budget management and the performance of administrative management (0.825). This shows that the ease of managing the budget can improve the performance of administrative management. The negative relationship between information technology and administrative management evaluation (-0.041) indicates that better information technology is not always directly proportional to the quality of administrative management evaluation.

REFERENCES

- Al-Billeh, T., Al-Hammouri, A., Al-Khalaileh, L., & Derbal, I. (2023). the Impact of Administrative Control Authorities on Sustainable Development in Jordanian Legislation: What Are the Challenges Facing Administrative Control Authorities in Achieving Sustainable Development? *Journal of Law and Sustainable Development*, 11(5), 1–22. <https://doi.org/10.55908/SDGS.V11I5.1129>
- AlMulhim, A. F. (2023). The impact of administrative management and information technology on e-government success: The mediating role of knowledge management practices. *Cogent Business and Management*, 10(1). <https://doi.org/10.1080/23311975.2023.2202030>
- Angelaki, M. E., Bersimis, F., Karvounidis, T., & Douligeris, C. (2024). Towards more sustainable higher education institutions: Implementing the sustainable development goals and embedding sustainability into the information and computer technology curricula. In *Education and Information Technologies* (Vol. 29, Issue 4). Springer US. <https://doi.org/10.1007/s10639-023-12025-8>

- Chidinmachinenye, T., & Anachuna, O. (2019). School Administrators' Utilization of Management Information System for Administrative Effectiveness in Secondary Schools in Enugu Education Zone. *International Journal of Research - GRANTHAALAYAH*, 7(9), 102–109. <https://doi.org/10.29121/granthaalayah.v7.i9.2019.565>
- Edhie Rachmad, Y., Ady Bakri, A., Irdiana, S., Waromi, J., & Jansen Sinlae, A. A. (2024). Analysis of The Influence of Financial Information Systems, Internal Control Systems, and Information Technology on Quality of Financial Reports. *Jurnal Informasi Dan Teknologi*, 6(1), 266–271. <https://doi.org/10.60083/jidt.v6i1.513>
- Gabriela, G., Granizo, U., & Mostacero, S. J. (2024). *Exploring the Competencies , Phases and Dimensions of Municipal Administrative Management towards Sustainability: A Systematic Review*.
- Hasrianti, H., Fajariani, N., Kamarudin, J., & Muhammadiyah Mamuju, U. (2023). Optimizing Financial Administration Management System At Tapalang Sub District Office. *Jurnal Ekonomi*, 12(04), 2023. <http://ejournal.seaninstitute.or.id/index.php/Ekonomi>
- Jasin, M., Umi, H., Erika, C., Fatimah, A., El, F., & Azra, A. (2024). International Journal of Data and Network Science The role of digital literacy and knowledge management on process innovation in SMEs. *International Journal of Data and Network Science*, 8, 337–344. <https://doi.org/10.5267/j.ijdns.2024.6.019>
- Juliana, E., Fabi, O., Carre, M., Medina, E. G., & Mu, C. E. (2022). Administrative management and its impact on the company's productivity, training plan. *Journal of Business and Entrepreneurial Studies*. <https://doi.org/10.37956/jbes.v6i3.300>
- Mangundu, J. (2024). Implementation Maturity in Institutions of Higher Education , South Africa : Application of the Will-Skill-Tool Model Exploring Factors Impacting Information Technology Governance Implementation Maturity in Institutions of Higher Education , South Africa . *The African Journal of Information Systems*, 16(1).
- Mufron, A., Najoan, M. E. I., & Utomo, B. (2023). Strategy for Implementing Technology in Higher Administrative Management Blockchain Education. *International Journal of Educational Narratives*, 2(3), 249–258.
- Qi, M., & Wang, J. (2021). Using the Internet of Things E-Government Platform to Optimize the Administrative Management Mode. *Wireless Communications and Mobile Computing*, 2021. <https://doi.org/10.1155/2021/2224957>
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabet.
- Voloshyna. (2021). MODERN METHODS OF ADMINISTRATIVE MANAGEMENT AT THE ENTERPRISES. *SWorldJournal*, 2(7). <https://doi.org/10.30888/2663-5712>
- Wang, Y., Zhao, J., Gao, N., & Shen, F. (2024). A Dynamic Evaluation Method for the Development of Intelligent Construction Technology in the Construction Field Based on Structural Equation Model–System Dynamics Model. *Buildings*, 14(2). <https://doi.org/10.3390/buildings14020417>