

Impact of Computerized Systems and Work Facilities on Employee Effectiveness: Moderating Role of Working Time

Siti Almaratus Solihah^{1*}, Abriandi²

^{1,2}Prodi Manajemen, Universitas 17 Agustus 1945 Jakarta
almaratusolikharries@gmail.com¹, abriandis@gmail.com²

Abstract

To analyze the effect of computerized systems and work facilities on work effectiveness among employees of PT Jasa Peralatan Pelabuhan Indonesia, with time at work as a moderator. Computerized System, Work Facilities, Work Effectiveness, Time Work Quantitative, SmartPLS, and Questionnaire. Computerized systems have a significant positive impact on work effectiveness. Work facilities also significantly impact work effectiveness. Working hours significantly impact work effectiveness. Working hours can moderate the impact of computerized systems on work effectiveness. Working hours also moderate the impact of work facilities on effectiveness. Research shows that both computerized systems and work facilities significantly impact work effectiveness, with working hours being a variable that strengthens this relationship. This study is limited to one company and respondent; therefore, the results cannot be generalized. Respondents were required from PT PELINDO employees, particularly PT Jasa Peralatan Pelabuhan Indonesia. All respondents were selected based on a strategy devised by Hair, which involved implementing a random employee sampling system.

Keywords: Computerized System, Time Work, Work Facilities, Work Effectiveness

1. INTRODUCTION

The use of computers can be clearly seen in various aspects, ranging from life aspects, such as business and educational activities, to various business activities in the port sector. Computerized systems have made it easier for everyone to carry out various employee work activities. Moreover, technology is developing rapidly in modern times and has impacted every activity performed by humans. Current technological advances have enabled almost all organizations to process data quickly, accurately, completely, and in a timely manner. One of the technologies that can help process data within an organization or company is the proper use of a computerized system. Rapid technological advances have significantly affected work performance in offices, especially in terms of processing highly complex data ([Udodiugwu, Nwosu, Obiakor, & Nwumeh, 2024](#)).

The development of this technology enables institutions to process data more quickly and accurately, and tasks that previously took a long time can now be completed quickly with the system's support. Therefore, computerized systems have become a competitive weapon that must be used by companies and organizations to win technological competition. Almost all companies have implemented computerized systems to obtain accurate results and make it easier to complete work properly and efficiently ([Maulana, Wibisono, & Sarmini, 2025](#)). One of the companies that has benefited from this system is PT Jasa Peralatan Pelabuhan Indonesia (JPPI). PT Jasa Peralatan Pelabuhan Indonesia earned a profit of 3 billion, which was 108% higher than that in 2022. PT Jasa Peralatan Pelabuhan Indonesia has seen an increase in the number of certified field personnel from 40 in 2022 to 47 in 2023/2024. PT Jasa Peralatan Pelabuhan Indonesia is targeting 50 certified employees.

Several previous researchers have proven that computerized systems are linked to work effectiveness and that computers can be meaningful and useful for organizations in improving work effectiveness, particularly in carrying out administrative tasks using computerized systems, if supported by the skills of the people using them ([Yusda, Zulkifli, Christover, & Arifin, 2025](#)). [Kuswanto \(2018\)](#) states that using computers not only increases time efficiency but also increases productivity and work efficiency. Employees who work more effectively enable organizations to become more resilient in achieving their goals. Similarly, [Beti \(2019\)](#) states that the implementation of computerized systems will support employees' work in providing services more effectively and will make the processed data secure and easy to access. Therefore, effective human resource management is required to improve employee work effectiveness and achieve goals. [Syam, M, Afdal, and Kamil \(2022\)](#) stated that the importance of computerised systems in employee work efficiency is highly influential because computerisation actually helps employees complete their work on time. In addition, easier access to data sources and clearer and larger storage make business decisions easier.

According to [Purnama, Rosadi, and Istikomah \(2024\)](#), work effectiveness indicates the level of success of managerial activities in achieving objectives, such as the quantity, quality, and timeliness of work completion. [Nurhaeni and Abriandi \(2023\)](#) found that work effectiveness is an important indicator for assessing an individual's contribution to the success of a company. Work effectiveness includes the ability to achieve tasks and goals, as well as work quality, initiative, and teamwork. Therefore, work effectiveness is a crucial factor that significantly impacts an organization. The factors that affect work effectiveness are computerized systems and work facilities. Both are important variables for increasing employee work effectiveness. This research differs from previous research in that no previous researchers have placed the variable of work time as a moderating variable in the influence of computerized systems and work facilities on work efficiency.

This study develops the latest analysis and complements previous research. It is expected to make a significant contribution to the field of technological advancement in the modern era for companies to be able to select good and suitable human resources, as well as for the community to improve their skills in line with technological advances. Based on theoretical understanding and previous research findings, the researcher will conduct a study on the influence of computerized systems on work effectiveness, the influence of work facilities on work effectiveness, the influence of work time on work effectiveness, work time moderating the influence of computerized systems on work effectiveness, and work time moderating the influence of work facilities on work effectiveness. Therefore, the author is interested in analyzing the title 'The Influence of Computerized Systems and Work Facilities on Work Effectiveness among Employees of PT Jasa Peralatan Pelabuhan Indonesia with Work Time as a Moderator.'

2. LITERATURE REVIEW

Theoretical Technology Acceptance Model (TAM) The grand theory reference in this study is the Theoretical Technology Acceptance Model, which was developed to analyze and understand the influence of factors on the acceptance of computer technology use. TAM itself is a development of the Theory of Reasoned Action (TRA), previously developed by Fishbein and Ajzen in 1980 ([Marey & Purwanto, 2020](#)). The Theory of Reasoned Action (TRA) explains computer user behavior based on the relationship between beliefs, attitudes, intentions, and user behavior ([Al-Adwan et al., 2023](#)). TAM aims to describe and predict user acceptance of an information system. TAM provides a theoretical basis for understanding the factors that influence the adoption of technology in organizations. TAM describes the causes and effects, operation, benefits, and objectives of information systems ([Ayamiseba, Hutajulu, & Marlissa, 2025](#)).

2.1 The Effect of Computerised Systems on Employee Work Effectiveness

According to [Doni and Lubis \(2019\)](#), computerized systems have a significant impact on employee work effectiveness and are highly categorized into three categories: Similarly, [Kuswanto \(2018\)](#) states that computerized systems have a positive and significant influence on employee work effectiveness. Computerized systems have a strong and significant impact on employee work effectiveness. Computerized systems significantly impact work effectiveness by enhancing data processing and enabling employees to complete tasks efficiently. By reducing human error and time spent on manual tasks, these systems improve productivity and work quality. Employees can access data quickly and accurately, streamlining decision-making and boosting performance. [Kuswanto \(2018\)](#) confirmed that computerized systems positively influence work efficiency by facilitating the timely completion of tasks and increasing organizational resilience. Hence, implementing efficient computerized systems plays a crucial role in achieving higher levels of employee work effectiveness.

The implementation of computerized systems in organizations optimizes employee performance by reducing manual workload and increasing data accuracy. This not only speeds up work processes but also improves productivity and the quality of the output. Kuswanto (2018) notes that computerization allows employees to complete tasks more efficiently and minimizes errors that commonly occur in manual work. With automated systems, employees can access information quickly, enabling faster decision-making. Therefore, computerized systems play a crucial role in enhancing overall work effectiveness. Based on this description, the following hypothesis can be proposed:

H₁: Effect of computerized systems on employee work effectiveness.

2.2 The Effect of Work Facilities on Employee Work Effectiveness

According to [Alvin Fauzan \(2024\)](#), work facilities partially have a positive and significant impact on employee work effectiveness. Similarly, [Amelya \(2022\)](#) obtained a coefficient of determination of 54.30% for work effectiveness. Therefore, work facilities have a positive and significant effect on employee work effectiveness. [Lukiyana and Tualaka \(2016\)](#) state that work facilities have a positive and important effect on work effectiveness because work facilities are everything or factors that can directly or indirectly affect employee work effectiveness towards the company, which can have a good or bad impact. Work facilities, including tools, equipment, and infrastructure, directly influence employees work effectiveness. Properly designed workspaces and facilities improve comfort, reduce distractions, and enhance productivity of workers. According to [Alvin Fauzan \(2024\)](#), adequate work facilities allow employees to focus on their tasks and complete them efficiently. [Amelya \(2022\)](#) further asserts that facilities such as ergonomic office furniture and technology tools play a significant role in supporting daily tasks of employees. Thus, organizations must ensure that their employees have access to the necessary resources and environments to perform their duties effectively, ultimately contributing to overall organizational success.

Adequate work facilities play a significant role in improving employee work effectiveness. Beyond physical equipment such as computers and desks, other facilities, like comfortable workspaces and supporting technology, enhance employee comfort and focus. [Lukiyana and Tualaka \(2016\)](#) emphasize that a supportive work environment can reduce stress and distractions, allowing employees to be more productive. With proper facilities, employees feel valued and supported in achieving their work goals more effectively. Therefore, investing in the right work facilities directly impacts employee performance quality. Based on this description, the following hypothesis can be drawn:

H₂: The Effect of Work Facilities on Employee Work Effectiveness.

2.3 The Effect of Work Time on Employee Work Effectiveness

According to [Setiawan, Herlina, and Kartika \(2023\)](#), work time has an important and significant role in employee work effectiveness. Similarly, [Dwinanda, Zulhj, and Islam \(2023\)](#) show that punctuality and working hours have a very important and positive effect on employee work effectiveness. [Putri and Edalmen \(2023\)](#) also state that work time has a positive and significant effect on employee effectiveness. Work time plays a crucial role in determining employees' work effectiveness. [Setiawan et al. \(2023\)](#) and [Dwinanda et al. \(2023\)](#) highlighted the importance of punctuality and adherence to working hours. Timely work completion ensures that employees meet deadlines and maintain consistent performance. Additionally, well-regulated working hours help prevent burnout and improve employee satisfaction. Properly structured work schedules enhance focus and productivity, ensuring that employees can perform tasks efficiently within a given timeframe. Thus, effectively managing work time is essential for optimizing employee performance and achieving organizational goals.

The duration and management of work time are directly linked to employee work effectiveness. [Setiawan et al. \(2023\)](#) found that employees who adhere to regular working hours and are not rushed tend to be more productive. Additionally, good time management helps prevent burnout and increases job satisfaction. With proper working hours, employees have sufficient time to complete tasks with optimal quality. Therefore, companies should provide an efficient work schedule that supports employees in completing their tasks without undue pressure. Based on this description, the following hypothesis can be drawn:

H₃: The Effect of Time Work on Employee Work Effectiveness.

2.4 Time Work Moderates the Effect of Computerised Systems on Employee Work Effectiveness

Time work supports the impact of computerized systems on employee work effectiveness. With appropriate working hours and a good computerized system, there will be a positive impact and increased work effectiveness among employees ([Siswanto & Aqdam, 2024](#)). Time moderates the effect of computerized systems on work effectiveness by ensuring that employees have sufficient time to leverage these systems effectively. Properly allocated working hours enable employees to fully utilize computerized systems, thereby enhancing their ability to complete tasks efficiently. [Siswanto and Aqdam \(2024\)](#) noted that time work supports the effectiveness of computerized systems by ensuring

that employees are not rushed and can focus on using these systems optimally. With appropriate work hours, employees can better handle their workload and effectively interact with technological tools, which in turn boosts overall work effectiveness.

Work time not only plays a direct role in work effectiveness but also functions as a moderating factor in the impact of computerized systems on employee performance. [Siswanto and Aqdam \(2024\)](#) explain that appropriate work hours allow employees to fully utilize computerized systems without feeling rushed. With efficient time allocation, employees can leverage the system's features to enhance productivity. Therefore, good time management can strengthen the positive impact of computerized systems on work effectiveness, enabling employees to complete tasks efficiently and effectively. Based on this description, the following hypothesis can be drawn:

H₄: Time Work Moderates the Effect of Computerised Systems on Employee Work Effectiveness

2.5 Time Work Moderates the Effect of Work Facilities on Employee Work Effectiveness

Working hours support the impact of work facilities on employee work effectiveness. Inadequate work facilities and inappropriate working hours negatively impact work effectiveness. Conversely, if work facilities are adequate and working hours are appropriate, they will have a positive impact on employee work effectiveness ([Antonius, 2020](#)). The moderating role of work time is significant in determining how work facilities affect employee work effectiveness. If employees have adequate work facilities but insufficient or mismanaged work hours, their productivity may be affected. [Antonius \(2020\)](#) suggested that aligning work facilities with appropriate working hours ensures maximum performance. Adequate facilities, coupled with optimal working hours, can improve comfort, efficiency, and job satisfaction, leading to enhanced work effectiveness. Therefore, organizations must prioritize providing proper facilities and managing work hours effectively to ensure that employees perform at their best. Based on the above description, the following hypothesis can be proposed:

H₅: Time Work Moderates the Influence of Work Facilities on Employee Work Effectiveness.

3. METHODOLOGY

The research population consisted of employees of PT Jasa Peralatan Pelabuhan Indonesia. The sample included PELINDO employees who responded to questions regarding computerized systems and work facilities. The sample size was determined using the method proposed ([Hair, 2022](#)). The sample size is estimated to be five to ten times the number of indicators in the questionnaire, meaning that this method is based on model elements in general. The correlation level between the indicators depends on the modeling system. PLS-SEM uses composite-based constructs to represent latent variables. PLS-SEM uses composite-based constructs to represent the latent variables of its indicators. This expresses the total variance (specific, general, and error variance) and describes the construction in linear system collaboration in the indicator data.

The sample used consisted of workers or employees working at PELINDO. The validated sample size comprised 152 participants. This study used two independent variables (X), one dependent variable (Y), and one moderator (Z). First, the computerized system variable (X_1). A computerized system is an electronic system for processing data quickly and accurately, automatically receiving input data, and under the supervision of programmed instruction steps (stored programs) stored in memory. There are three metrics for the computerized system variable: hardware, software, and brainware ([Yusda et al., 2025](#)). Second, the work facilities variable (X_2) is included. [Ulhaq and Wardhani \(2024\)](#) described work facilities as tools and infrastructure that support activities to improve work performance. To improve employee performance, companies must pay attention to existing office equipment. The work facilities variable has four indicators: suitability to needs, optimization of work results, acceleration of work processes, and correct placement ([Yandi, Ismiasih, & Trimerani, 2023](#)). Third, the work effectiveness variable (Y). [Danie, Taroreh, and Kojo \(2024\)](#) define work effectiveness as a condition that indicates the degree of success of management activities in achieving objectives, such as the quantity of work, quality of work, and timeliness of work completion. Work effectiveness has three indicators, namely adaptability, job satisfaction, and work performance ([Pamungkas, Ernawati, & Zulkifli, 2020](#)). Fourth, the variable of time work (Z) is included. [Muis, Heryandri, Bimarso, Saribanon, and Kumalasari \(2024\)](#) state that working hours/time is the time spent working during a certain period where the time or working hours are in accordance with the company's operating hours. The variable of work time has five indicators: break time, long leave, annual leave, and work priority.

The data collection method involved distributing questionnaires containing questions and statements in accordance with indicators of various variables that were initially filtered using a Likert scale of 1–5, with the condition that participants agreed with the test results. Applied research used SmartPLS software to manage the respondent data and prove related hypotheses. There are two types of models for PLS analysis: measurement (external) and structural (internal) models. Computational models consider the validation and reliability of the model. Structural models are used to measure the estimability of latent variables and constructs (Purwanto & Asbari, 2021).

4. RESULTS AND DISCUSSIONS

The study involved a selected sample of 152 working-class participants, specifically those working at PT PELINDO, consisting of 88 (57.9%) female and 64 male (42.1 %) participants. The target age group for this study was 68 participants (44.7%) aged between 21 and 25 years and 84 participants (55.3%) aged over 25 years. Data quality analysis in the study considered the role of Partial Least Squares (PLS) calculations, structural equation Modelling with variance (SEM) approach, or component-based structural equation Modelling approach. SmartPLS (Partial Least Squares) was used as the software.

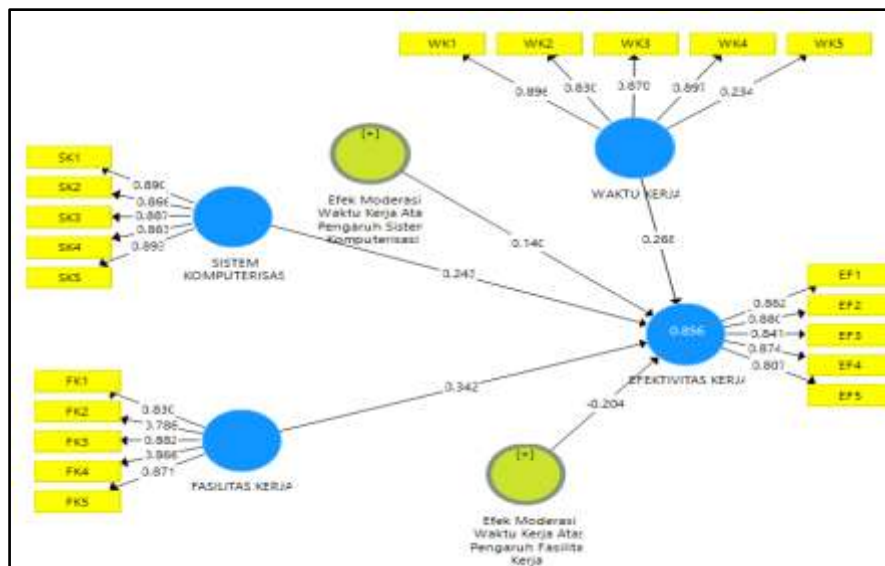


Figure 1. PLS algorithm structural model

4.1 Validation and Reliability Test

Table 1. Validation and reliability table

| Variable | Cronbach's Alpha | Rho-A | Composite Reliability | Average Variance Extracted (AVE) |
|---|------------------|-------|-----------------------|----------------------------------|
| Moderating Effect of Work Time on Work Facilities Influence | 1.000 | 1.000 | 1.000 | 1.000 |
| Moderating Effect of Work Time on Computerized System Influence | 1.000 | 1.000 | 1.000 | 1.000 |
| Work Effectiveness | 0.906 | 0.909 | 0.930 | 0.728 |
| Work Facilities | 0.902 | 0.904 | 0.927 | 0.718 |
| Computerized System | 0.927 | 0.928 | 0.945 | 0.774 |
| Work Time | 0.817 | 0.990 | 0.880 | 0.621 |

The validity test results in Table 1 show that the AVF and AFB root mean squares exceed the threshold of 0.5, and the validation test results are successful. Therefore, it is important to ensure that the indicators used have adequate validity and a strong convergence. In addition, the results of the study also show that the Rho-A and composite reliability values exceed 0.7, indicating that the reliability test

meets the established standards. Structural model testing shows the estimation of the relationship between the variables measured by three criteria: R-squared, F-squared, and path coefficient estimation.

The R-squared value for the work efficiency variable is 0.856, which means that approximately 85.6% of the variation in work efficiency can be explained by the influence of the computer systems, work equipment, and working hours. These results indicate that the model structure is quite strong, as this value exceeds 85.1% of the R-Adjust value, which is 0.851. The processed data made it possible to generate answers to the research hypotheses tested. Hypothesis testing was conducted using T-statistics and P-values. If the P-value was less than 0.05, the research hypothesis was considered to be valid. The following are the results of the hypothesis testing conducted in this study. The data presented indicate that all five hypotheses proposed in this study were accepted.

4.2 Hypothesis Testing

Table 2. Hypothesis testing table

| | Hypothesis | Sample First | Sample Mean | Standard Deviation | T Statistic | P Value | Decision |
|-------|---|--------------|-------------|--------------------|-------------|---------|----------|
| H_1 | Computerized System >> Work Effectiveness | 0.243 | 0.246 | 0.083 | 2.913 | 0.243 | Accepted |
| H_2 | Work Facilities >> Work Effectiveness | 0.342 | 0.339 | 0.114 | 2.996 | 0.342 | Accepted |
| H_3 | Time Work >> Work Effectiveness | 0.268 | 0.273 | 0.064 | 4.161 | 0.268 | Accepted |
| H_4 | Moderation Time Work >> Computerized System >> Work Effectiveness | 0.140 | 0.132 | 0.071 | 1.972 | 0.140 | Accepted |
| H_5 | Moderation Time Work >> Work Facilities >> Work Effectiveness | -0.204 | -0.194 | 0.071 | 2.892 | -0.204 | Accepted |

Proof of Hypothesis H_1 , The Effect of Computerized Systems on Employee Work Effectiveness. The results of hypothesis H_1 state that computerized systems have a positive and significant effect, assuming that the p-value of 0.004 is less than the significance value (0.05), therefore this hypothesis is accepted. According to [Choirinisa and Ikhwan \(2022\)](#), the use of computerized systems has a positive and significant impact on employee performance, which determines the level of work effectiveness. Similarly, [Aulia \(2025\)](#) showed that computerized systems significantly affect work effectiveness. [Fitriani and Hwihanus \(2023\)](#) state that computerized systems have a positive and significant effect on work effectiveness. Based on this description, it can be concluded that H_1 is accepted.

Hypothesis H_2 is proven, and work facilities affect employee work effectiveness. The results of hypothesis H_2 state that work facilities have a positive and significant effect, assuming that the p-value of 0.003 is smaller than the significance value (0.05); therefore, this hypothesis is accepted, and it is found that work facilities have a significant overall impact on employee work effectiveness. Similarly, [Herizal and Mutia \(2020\)](#) state that work facilities have a significant effect (sig 0.000) of 0.3% on employee work effectiveness. Based on this description, it can be concluded that H_2 is accepted.

Proving Hypothesis H_3 , Time Work on Employee Work Effectiveness. The results of hypothesis H_3 state that time work has a positive and significant effect, assuming that the p-value of 0.000 is less than the significance value (0.05); therefore, this hypothesis is accepted. [Andriani and Wardana \(2023\)](#) state that time has a positive and significant impact on employee work effectiveness by implementing work from home. Similarly, [Prianka \(2023\)](#) stated that time work partially and simultaneously has a significant effect on work effectiveness. [Bhimasta, Surya, and Pramudita \(2025\)](#) states that time work has a positive and significant effect on employee work effectiveness. Based on this description, it can be concluded that H_3 is accepted.

Hypothesis H_4 is that there is a relationship between the effect of time on moderating the influence of computerized systems on employee work effectiveness. The results of hypothesis H_4 state that there is a positive and significant effect of time work and that it is able to moderate the influence of computerized systems on work effectiveness, assuming that the p-value of 0.049 is smaller than the significance value (0.05), so this hypothesis is accepted. Time work can support the impact of computerized systems on work effectiveness. With appropriate and timely working hours, it can have a positive impact and increase employee work effectiveness (Nguyen, Ramayah, Kweh, Tran, & Minh, 2024). Based on this description, it can be concluded that H_4 is accepted.

Hypothesis H_5 is proven, there is a relationship between the effect of time work moderating the influence of work facilities on employee work effectiveness. The results of hypothesis H_5 state that there is a positive and significant effect of time work and that it can moderate the influence of work facilities on work effectiveness, assuming that the p-value of 0.004 is smaller than the significance value (0.05), then this hypothesis is accepted. Time work supports the impact of work facilities on work effectiveness if the work facilities available in a company are adequate and the working hours are appropriate, disciplined, and punctual, which can increase the work effectiveness of employees. Conversely, if the available work facilities are inadequate and the working hours are inappropriate, it will have a negative impact and reduce the work effectiveness of employees (Hasmi, Hardiyansyah, & Fauzi, 2023). Based on this description, it can be concluded that H_5 is accepted.

5. CONCLUSIONS

5.1 Conclusion

This study proves that computerized systems and work facilities affect work effectiveness, with time at work as a moderating variable. This study shows that computerized systems have a positive and significant effect on work effectiveness; work facilities have a significant effect on work effectiveness; working time has a significant effect on work effectiveness; working time has a significant moderating effect on the effect of computerized systems on work effectiveness; and working time has a significant moderating effect on the effect of work facilities on work effectiveness.

5.2 Research Limitations

For future research, it is hoped that authors will be able to think more creatively and provide creative, innovative ideas to add new moderating variables. In the future, PT Jasa Peralatan Pelabuhan Indonesia should pay more attention to and improve work facilities so that employee work effectiveness can be increased again

5.3 Suggestions and Directions for Future Research

A suggestion for future research is to increase the number of data samples or respondents. Using a larger number of respondents, more accurate data results can be obtained, especially considering the possibility of variations in respondent behavior over time in future research.

REFERENCES

- Al-Adwan, A. S., Li, N., Al-Adwan, A., Abbasi, G. A., Albelbisi, N. A., & Habibi, A. (2023). Extending the technology acceptance model (TAM) to predict university students' intentions to use metaverse-based learning platforms. *Education and Information Technologies*, 28(11), 15381-15413. doi:<https://doi.org/10.1007/s10639-023-11816-3>
- Alvin Fauzan, F. (2024). *Pengaruh Kompetensi, Fasilitas Dan Pemanfaatan Teknologi Informasi Terhadap Efektivitas Kerja Dosen Universitas Muhammadiyah Ponorogo*. Universitas Muhammadiyah Ponorogo.
- Amelya, T. (2022). *Pengaruh Fasilitas Kerja Terhadap Efektivitas Kerja Pegawai Di Kantor Kecamatan Rancah Kabupaten Ciamis Triana Amelya*.
- Andriani, D., & Wardana, M. A. (2023). Analisis Pengaruh Bekerja Dari Rumah, Budaya Organisasi Dan Kompetensi Terhadap Efektivitas Kerja Karyawan Kebun Sehat Jsr. *Management Research and Business*, 1(2), 75-91. doi:<https://doi.org/10.64237/mrb.v1i2.14>
- Antonius, F. (2020). Analisis Hubungan Pengawasan Dan Disiplin Kerja Terhadap Efektivitas Kerja Pegawai Pada Dewan Perwakilan Rakyat Daerah (DPRD) Ogan Komering Ulu Timur. *Jurnal Prioritas Trisna Negara*, 1(1), 1-8.

- Aulia, A. (2025). The Effect of Accounting Information Systems and Work Environment on Employee Performance at the Department of Marine and Fisheries of Central Sulawesi Province in Palu City. *GoodWill Journal of Economics, Management, and Accounting*, 5(2), 243-251. doi:<https://doi.org/10.65246/aba1a639>
- Ayamiseba, D. E., Hutajulu, H., & Marlissa, E. R. (2025). Analysis of the factors affecting employee productivity at the Regional Planning and Development Agency of Mimika Regency. *Journal of Multidisciplinary Academic Business Studies*, 2(2), 113-130. doi:<https://doi.org/10.35912/jomabs.v2i2.3068>
- Beti, I. Y. (2019). Sistem Pendukung Keputusan Pemilihan Karyawan Terbaik Menggunakan Simple Additive Weighting. *ILKOM Jurnal Ilmiah*, 11(3), 252-259. doi:<https://doi.org/10.33096/ilkom.v11i3.480.252-259>
- Bhimasta, R. A., Surya, R. A., & Pramudita, D. P. D. (2025). Integrating Marketing, HRM, and Accounting Systems for Customer Value Sustainability. *Jurnal Relevansi: Ekonomi, Manajemen dan Bisnis*, 9(2), 149-162. doi:<https://doi.org/10.61401/relevansi.v9i2.307>
- Choirinisa, A. A., & Ikhwan, K. (2022). Pengaruh penggunaan aplikasi digital terhadap efektivitas kerja pegawai. *TRANSEKONOMIKA: Akuntansi, Bisnis Dan Keuangan*, 2(5), 483-492. doi:<https://doi.org/10.55047/transekonomika.v2i5.239>
- Danie, C., Taroreh, R. N., & Kojo, C. (2024). Pengaruh Kompetensi, Komunikasi dan Team Work Terhadap Efektivitas Kerja Pegawai di Dinas Pendidikan Daerah Provinsi Sulawesi Utara. *Jurnal Emba*, 12(1), 161-172. doi:<https://doi.org/10.35794/emba.v12i01.53573>
- Doni, F., & Lubis, S. (2019). Pengaruh Sistem Kompuetrisasi Terhadap Efektifitas Kerja Pegawai Di Kantor Pelayanan Pajak Pratama Medan Kota. *JURNAL PUBLIK REFORM*, 5(1), 23-30. doi:<https://doi.org/10.46576/jpr.v5i1.498>
- Dwinanda, G., Zuhj, R. A. A., & Islam, M. F. (2023). Pengaruh Kompetensi Disiplin Kerja dan Etos Kerja Terhadap Efektifitas Kerja Pegawai. *Jurnal Manajemen STIE Muhammadiyah Palopo*, 9(1), 61-71. doi:<http://dx.doi.org/10.35906/jurman.v9i1.1517>
- Fitriani, D., & Hwihanus, H. (2023). Pengaruh sistem informasi akuntansi dalam penerapan siklus produksi dan pengendalian internal untuk meningkatkan efektivitas kinerja UMKM. *Jurnal Kajian dan Penalaran Ilmu Manajemen*, 1(1), 26-38. doi:<https://doi.org/10.59031/jkpim.v1i1.47>
- Hair, J. F. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)*: sage.
- Hasmi, H., Hardiyansyah, H., & Fauzi, F. (2023). Pengaruh Persepsi Dukungan Organisasi, Pelatihan, Konsep Diri dan Komunikasi terhadap Efektivitas Kerja Pegawai Sekretariat Daerah Kabupaten Muara Enim. *Jurnal Bisnis, Manajemen, Dan Ekonomi*, 4(3), 223-237. doi:<https://doi.org/10.47747/jbme.v4i3.1205>
- Herizal, H., & Mutia, M. (2020). Pengaruh Prosedur Kerja Dan Fasilitas Kerja Terhadap Efektivitas Kerja Pegawai Dinas Sosial, Pemberdayaan Perempuan Dan Perlindungan Anak Kabupaten Pidie Jaya. *Jurnal Sosial Humaniora Sigli*, 3(2), 161-170. doi:<https://doi.org/10.47647/jsh.v3i2.316>
- Kuswanto, A. D. (2018). Pengaruh Sistem Komputerisasi Terhadap Efektivitas Kerja Pegawai Pada Kantor Kelurahan Rawasari Jakarta Pusat. *Aktiva-Jurnal Penelitian Ekonomi Dan Bisnis*, 2(2), 51-60.
- Lukiyana, L., & Tualaka, D. S. (2016). Pengaruh Kompensasi Dan Fasilitas Kerja Terhadap Kinerja Guru Dengan Disiplin Kerja Sebagai Variabel Intervening Pada Tk Misi Bagi Bangsa Sejakarta. *Media Manajemen JasA*, 3(2), 33-45. doi:<https://doi.org/10.52447/mmj.v3i2.701>
- Marey, D. R. E., & Purwanto, E. (2020). Model Konseptual Minat Penggunaan E-Wallet: Technology Acceptance Model (TAM). *Technology Adoption: A Conceptual Framework*, 3150, 3250.
- Maulana, H., Wibisono, C., & Sarmini, S. (2025). The influence of communication, teamwork and culture on employee performance at Riau Islands Province regional procurement bureau with self-efficacy as intervening variables. *Global Academy of Multidisciplinary Studies*, 1(2), 115-139. doi:<https://doi.org/10.35912/gams.v1i2.3466>
- Muis, A., Heryandri, K., Bimarso, W., Saribanon, E., & Kumalasari, S. D. (2024). Analisis Kondisi Kran Kapal, Jumlah Trucking dan Waktu Kerja di Gudang Penerima terhadap Tingginya Berthing Time Kapal. *Jurnal Manajemen Pendidikan dan Ilmu Sosial (JMPIS)*, 5(2), 95-105. doi:<https://doi.org/10.38035/jmpis.v5i2.1842>

- Nguyen, H. T., Ramayah, T., Kweh, Q. L., Tran, P. T. K., & Minh, H. T. D. (2024). Determinants of accounting information system effectiveness and moderating role of external consultants: Empirical research in the Ben Tre Province of Vietnam. *Heliyon*, 10(7). doi:<https://doi.org/10.1016/j.heliyon.2024.e28847>
- Nurhaeni, P., & Abriandi, A. (2023). Pengaruh Budaya Kerja Dan Kompetensi Terhadap Kinerja Karyawan Dengan Pengawasan Sebagai Variabel Moderating: Studi Kasus Pada Pt. Jasa Titipan Ekpres. *MEDIA STUDI EKONOMI*, 26(1), 19-32.
- Pamungkas, H. D., Ernawati, F. Y., & Zulkifli, Z. (2020). *Faktor Faktor Yang Mempengaruhi Efektivitas Kerja Karyawan Pada Pt Mhs Semarang 2020*. Paper presented at the E-Prosiding Seminar Nasional Manajemen dan Akuntansi STIE Semarang (SENMAS).
- Prianka, S. (2023). Pengaruh Kualitas Kerja dan Displin Kerja Terhadap Efektivitas Kerja Pegawai Pt. Damai Abadi Medan. *Journal economics and strategy*, 4(1), 32-41. doi:<https://doi.org/10.36490/jes.v4i1.739>
- Purnama, I., Rosadi, B., & Istikomah, I. (2024). Pengaruh Koordinasi Terhadap Efektivitas Kerja di Dinas Pangan dan Pertanian Kota Cimahi. *Jurnal Ilmiah Universitas Batanghari Jambi*, 24(1), 98-102. doi:<https://doi.org/10.33087/jiubj.v24i1.4143>
- Purwanto, A., & Asbari, M. (2021). Analisis data penelitian marketing: perbandingan hasil antara amos, smartpls, warppls, dan spss untuk jumlah sampel besar. *Journal of Industrial Engineering & Management Research*, 2(4), 216-227. doi:<https://doi.org/10.7777/JIEMAR>
- Putri, M. P., & Edalmen, E. (2023). Pengaruh Motivasi, Beban Kerja dan Jam Kerja terhadap Kinerja Karyawan. *Jurnal Manajerial dan Kewirausahaan*, 5(3), 687-696. doi:<https://doi.org/10.24912/jmk.v5i3.25409>
- Setiawan, F. H., Herlina, E., & Kartika, R. (2023). Pengaruh Motivasi Dan Disiplin Kerja Terhadap Efektivitas Kinerja Pegawai (Studi Pada Kantor Kementerian Agama Kabupaten Ciamis). *Business Management and Entrepreneurship Journal*, 3(2), 140-149.
- Siswanto, E., & Aqdam, A. A. (2024). The Impact of E-Commerce and Accounting Information Systems on Entrepreneurial Decision-Making in MSMEs: A Quantitative Study in the Digital Era. *Journal of Management and Informatics*, 3(1), 37-52. doi:<https://doi.org/10.51903/jmi.v3i1.42>
- Syam, A. A., M, S., Afdal, A. A. M., & Kamil, M. N. A. (2022). Sistem Komputerisasi Terhadap Efektivitas Kerja Pegawai. *Buletin Poltanesa*, 23(3), 566-573. doi:<https://doi.org/10.51967/tanesa.v23i2.1964>
- Udodiugwu, M. I., Nwosu, C. C., Obiakor, U. J., & Nwumeh, U. J. (2024). Motivation through indirect compensation: Evaluating employee performance in Enugu State Civil Service Commission. *Annals of Human Resource Management Research*, 4(2), 79-96. doi:<https://doi.org/10.35912/ahrmr.v4i2.2320>
- Ulhaq, R. Z., & Wardhani, M. F. (2024). Pengaruh Kepemimpinan, Fasilitas Kerja, Dan Motivasi Kerja Terhadap Kinerja Pegawai Kelurahan Di Kecamatan Kaliwungu Kabupaten Kendal Rahael. *Management Studies and Entrepreneurship Journal*, 5(1), 129-140.
- Yandi, A., Ismiasih, I., & Trimerani, R. (2023). indikator fasilitas kerja dan kinerja karyawan di pt. karya makmur langgeng kalimantan baraT. *Jurnal Ilmiah Management Agribisnis (Jimanggis)*, 4(1), 31-42. doi:<https://doi.org/10.48093/jimanggis.v4i1.149>
- Yusda, R. M., Zulkifli, S., Christover, D., & Arifin, H. (2025). Computerized Systems as a Driver of Employee Performance Improvement: Sistem Komputerisasi sebagai Pendorong Peningkatan Kinerja Karyawan. *Academia Open*, 10(2), 11429. doi:<https://doi.org/10.21070/acopen.10.2025.11429>