



## EFFECTIVENESS OF THE E-MASTER AND E-PRESENCE PERSONNEL SYSTEMS AT THE BOJONEGORO PSBR UPT

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### Abstract :

*This study analyzes the effectiveness of the implementation of the e-Master and e-Presence personnel systems at the Bojonegoro PSBR UPT using DeLone and McLean's theory covering system quality, information, and service. This study uses a descriptive qualitative approach with a case study method through in-depth interviews, observations, and documentation studies. The results show that the efficiency of completing personnel administration tasks such as updating file data and monthly attendance recapitulation has exceeded the set standard targets thanks to the responsiveness of administrative staff. However, the implementation of this digitalization still faces several operational obstacles, including server instability during peak hours, restrictions on application operating hours, delays in submitting physical files, and technical constraints on the biometric facial recording and GPS coordinate features. Therefore, strengthening information technology infrastructure, regular improvements to application features, flexibility in operational access, and increasing administrative discipline of ASN are needed to realize more responsive, transparent, and accountable back-office personnel governance in accordance with the Digital Era Governance paradigm.*

**Keywords :** Effectiveness of Personnel System, e-Master, e-Presence, UPT PSBR Bojonegoro, Digital Era Governance

## INTRODUCTION

Public Administration Science basically focuses on the management of government organizations, the formulation of strategic policies, and the provision of services to meet the needs of the wider community.(Dharmawan et al., 2024)In the dynamics of modern bureaucracy, the success of government agencies in providing accountable services is largely determined by the quality of management of internal functions in the back-office, particularly the management of Human Resources (HR) of State Civil Apparatus (ASN).(Gustyari et al., 2022). As the Digital Era Governance paradigm develops, conventional manual and paper-based personnel governance is now required to transform into an information technology-based system.(Said et al., 2026)Digitizing personnel administration is a crucial tool for increasing work efficiency, minimizing the risk of human error, and ensuring the transparency of performance data.(Nicola et al., 2022)Without the support of neat and integrated internal personnel governance, the operational effectiveness of government agencies in carrying out their main functions will experience various administrative obstacles.(Permatasari et al., 2022).



The East Java Provincial Government, through the Social Services Agency, is striving to integrate information technology into human resource management by implementing the e-Master (Integrated Electronic ASN Management) and e-Presence systems. At the Bojonegoro Youth Social Services Technical Implementation Unit (UPT PSBR), these two electronic systems serve as key pillars in managing digital footprints and employee work discipline.(Regyna A & Alie, 2024) The Administration Section plays a vital role as a data processing center that is fully responsible for updating employee profiles in the e-Master application, summarizing daily e-Presence data, and processing Employee Performance Target (SKP) documents and the organization's Performance Tree.(Lubis & Veri, 2025) The accuracy of data input by administrative staff into this digital platform has a direct impact on the accuracy of performance allowance calculations, promotions, and the enforcement of civil servant discipline within the Bojonegoro PSBR UPT.(Siahaan, 2026). Although the implementation of e-Master and e-Presence is designed to cut the bureaucratic chain and increase transparency, empirical conditions in the field often show a gap between the ideal system and operational reality.(Widari et al., 2023). The operation of this digital personnel application is not free from technical constraints, such as network connectivity disruptions, main server instability (server downtime), and delays in validating physical files into digital documents.(Japarudin & Solong, 2025). In addition, the dynamics of ASN attendance, such as the implementation of external official duties, permits, and leave, require very careful recording so that the daily attendance recapitulation is in line with the performance appraisal system.(Ismawaty et al., 2025)If these technical and administrative constraints are not managed quickly, the completion time for monthly employee accountability reports will be hampered.(Syauqi & Prasetyawan, 2023) .

Most previous studies conducted at the Bojonegoro PSBR Technical Implementation Unit (UPT PSBR) have focused on evaluating downstream social service programs, such as the effectiveness of skills training, the economic independence of out-of-school youth, and the dynamics of beneficiary care. Conversely, scientific studies specifically examining the effectiveness of internal personnel administration, particularly the evaluation of the integrated operation of the e-Master and e-Presence applications, are still very limited. This research gap underlies the importance of conducting this research to fill the gap in government office administration studies at the Bojonegoro PSBR Technical Implementation Unit (UPT PSBR). Based on this background, this study aims to analyze in depth the effectiveness of the implementation of the e-Master and e-Presence personnel systems, identify operational obstacles faced by data managers in the administration section, and formulate solutions to improve the efficiency of ASN administration at the Bojonegoro PSBR Technical Implementation Unit. Theoretically, the results of this study are expected to contribute to the development of public administration literature on back-office digitalization. Practically, this research is expected to provide strategic input for the leadership of the Bojonegoro PSBR UPT and the East Java Provincial Social

Service in optimizing digital-based personnel management that is more responsive and accountable.

## **RESEARCH METHOD**

Qualitative research is a research approach that focuses on an in-depth, holistic, and contextual understanding of social phenomena through data collection in naturalistic settings. Unlike quantitative research, which tests hypotheses through statistical measurements, qualitative methods seek to explore the meaning, processes, and dynamics of interactions occurring in the field from the perspective of the actors (emic). (Wara et al., 2021) In the realm of Public Administration studies, a descriptive qualitative approach is very appropriate for analyzing how a system, policy, or information technology is implemented in everyday bureaucratic practices. (Panggabean & Meilani, 2023) This research uses a case study design to explore in detail the effectiveness of the implementation of the e-Master and e-Presence personnel systems, back-office technical constraints, and data management patterns of State Civil Apparatus (ASN) at the research location.

This research was conducted at the Technical Implementation Unit for Youth Social Services (UPT PSBR) Bojonegoro, which is under the auspices of the East Java Provincial Social Service. The selection of this locus was done intentionally (purposive) with the consideration that UPT PSBR Bojonegoro implements a digital-based personnel system in East Java (e-Master and e-Presence) in managing employee discipline and data, however, an in-depth evaluation regarding the effectiveness of internal personnel administration in this unit has never been studied before. The determination of informants was carried out using a purposive sampling technique, namely selecting research subjects based on criteria and capacities relevant to the focus of the study. Key informants in this study included the Head of the Administration Sub-Division as the operational manager, personnel management staff tasked with processing e-Master, e-Presence, and SKP documents, as well as a sample of employees/ASN at UPT PSBR Bojonegoro as system users.

The data collected in this study consisted of primary and secondary data. Primary data were obtained directly through in-depth interviews with key informants to explore experiences, technical obstacles (server downtime, slow file validation), and the effectiveness of system operation. In addition, primary data were strengthened through passive participatory observation of daily work processes in the Administration Sub-Division, such as the flow of employee profile updates in the e-Master application, the daily e-Presence recapitulation procedure, and the recording of ASN SKP. Meanwhile, secondary data were obtained through documentation techniques sourced from ASN daily attendance recapitulation data, UPT Performance Tree structure documents, personnel Standard Operating Procedures (SOPs), and agency performance accountability reports. To ensure the validity of the data, this study employed data triangulation techniques, namely source triangulation and technical triangulation. Source triangulation was conducted by comparing information

and statements obtained from personnel management staff with interviews with the Head of the Administration Sub-Division and confirmation from employees/ASN. Meanwhile, technical triangulation was conducted by comparing the results of in-depth interviews regarding system effectiveness with physical evidence from observations at the administration desk and the e-Master and e-Presence data recapitulation documents stored in the system.

The data analysis technique in this study refers to the interactive model of Miles, Huberman, and Saldana, which consists of four main stages that are interconnected in a circular manner.(Wibowo & Askafi, 2026) . The first stage is data collection from interviews, observations, and documentation in the field. The second stage is data condensation, which is the process of sorting, simplifying, summarizing, and focusing raw data on indicators of the effectiveness of the personnel information system. The third stage is data presentation (data display), which is realized in the form of descriptive narrative text and work efficiency tables so that the information flow is easy to understand. The final stage is drawing conclusions and verification (conclusion drawing/verification) to formulate detailed and tested answers regarding the effectiveness of the implementation of e-Master and e-Presence in managing ASN personnel at the UPT PSBR Bojonegoro.

## FINDINGS AND DISCUSSION

**Table 1: Mapping of ASN Personnel Administration Storage System and Barriers**

| No | Types of ASN Personnel Data                                               | Storage System     | Media/Applications Used                                                  | Major Constraints in Management                                                                                           |
|----|---------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 1  | ASN Profile & Portfolio Files (KTP, KK, Rank Decree, KGB Decree, Diploma) | Digital & Physical | East Java Provincial Government e-Master Application & Physical Archives | Delays in submitting physical files for updates from employees and slow internet connection problems when uploading data. |
| 2  | Recapitulation of ASN                                                     | Digital &          | East Java Provincial Government e-                                       | Server disruptions                                                                                                        |

|   |                                                                           |                    |                                                    |                                                                                                                                                                                                                             |
|---|---------------------------------------------------------------------------|--------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | Attendance & Discipline (Absenteeism for Entry/Return, DL, Leave, Permit) | Physical           | Presence Application                               | (server down) during peak attendance hours, errors in GPS coordinates on employee cellphones, and technical problems with the biometric facial recording feature where employee faces are often not recorded by the system. |
| 3 | SKP Processing & ASN Performance Tree                                     | Digital & Physical | e-Master / E-Performance Application & Print Files | Delay in synchronizing individual performance targets with the organizational Performance Tree at the Social Services level.                                                                                                |
| 4 | Promotion Documents & Periodic Salary Increases (KGB)                     | Digital & Physical | e-Master Application                               | The multi-level verification and validation process at the BKD and Social Service levels requires quite a long time.                                                                                                        |

Source: 2026 Research Data (Processed)

Based on the mapping of the ASN personnel storage system and administrative obstacles at the Bojonegoro PSBR UPT, internal data management still combines digital and physical methods through the use of the East Java Provincial Government's e-Master and e-Presence applications. Although digitalization has been implemented in various aspects, its implementation still faces a number of major obstacles that hinder operational efficiency. In managing ASN profiles and portfolio files, obstacles that often arise include delays in the physical submission of updated files from employees and slow internet connections when uploading data into the system. Meanwhile, in the aspect of attendance recapitulation and work discipline, technical issues are the most significant challenges, such as server disruptions or server downtime during peak attendance hours, errors in employee mobile GPS, and errors in the facial recognition system where employee faces are often not properly recorded by the application. Technical and administrative obstacles also occur in the performance and rank management function, where the processing of Employee Performance Targets (SKP) is often hampered by delays in synchronizing individual performance targets with the organizational Performance Tree at the Social Service level. Furthermore, the process of processing documents for promotions and Periodic Salary Increases (KGB) takes quite a long time due to the lengthy multi-level verification and validation process that must be completed at the Regional Personnel Agency (BKD) and the Social Services Agency (Social Services). Overall, the findings in this table indicate that the transition to digital-based employee governance at the Bojonegoro PSBR UPT still requires strengthening the technology infrastructure, increasing server stability, improving biometric verification features, and optimizing employee administrative discipline so that operational obstacles in the administration department can be minimized sustainably to support the realization of accountable, transparent, and efficient employee services.

**Table 2: Time Efficiency of Internal Personnel Administration Services**

| No | Types of Personnel Administration Services / Tasks | Target Completion Time | Realization of Time in the Field | Causes of Delays / Main Constraints                                       |
|----|----------------------------------------------------|------------------------|----------------------------------|---------------------------------------------------------------------------|
| 1  | Updating ASN File Data on e-Master                 | 1 day                  | 2-3 Hours                        | The physical files are complete and the PDF document format complies with |

|   |                                                    |        |        |                                                                                                                                                                                    |
|---|----------------------------------------------------|--------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                                                    |        |        | the maximum size, as well as the necessary technical adjustments with the e-Master application.                                                                                    |
| 2 | ASN Monthly Attendance Recapitulation (e-Presence) | 7 Days | 3 days | There are problems with attendance logs if ASN forget to clock-in/out when carrying out outside duties, as well as location coordinates (map) that are not detected by the system. |
| 3 | Processing and Input of Processed ASN SKP          | 7 Days | 5 Days | The process of coordinating draft performance targets between employees and their direct superiors and between youth clusters that require adjustments.                            |
| 4 | Preparation of                                     | 1 week | 7 Days | Delay in                                                                                                                                                                           |

|  |                                                   |  |  |                                                                                                                           |
|--|---------------------------------------------------|--|--|---------------------------------------------------------------------------------------------------------------------------|
|  | Monthly<br>Personnel<br>Accountability<br>Reports |  |  | collecting<br>supporting<br>physical<br>evidence<br>(such as<br>assignment or<br>leave letters)<br>from each<br>employee. |
|--|---------------------------------------------------|--|--|---------------------------------------------------------------------------------------------------------------------------|

*Source: 2026 Research Data (Processed)*

Based on an evaluation of the time efficiency of internal personnel administration services at the Bojonegoro PSBR UPT, the actual completion time for most personnel tasks has generally succeeded in meeting or even exceeding the standard time targets that have been set. In the service of updating or updating ASN file data through the e-Master application, work that had a target completion time of one day was actually able to be completed more quickly, namely in just two to three hours, provided that the physical files from the employee were complete, the PDF document format was in accordance with the maximum size, and technical adjustments to the e-Master system could be resolved properly. Similarly, in the task of recapitulating monthly ASN attendance using the e-Presensi application which was targeted to be completed within seven days, where the administrative officer was able to complete it faster in three days although sometimes still faced obstacles in attendance logs due to employees who forgot to clock-in or clock-out when carrying out outside duties as well as problems with locations or digital maps that were not detected by the system. Improved time efficiency was also evident in the processing and input of ASN Employee Performance Targets (SKP), which were completed within five days of the seven-day target. This process still required intensive coordination regarding the draft performance targets between employees and their direct superiors and between youth clusters. Meanwhile, the task of preparing the monthly employee accountability report was recorded as being completed within one week, in line with the planned target. The main obstacle that often slowed down the data collection process stemmed from the delay in submitting supporting physical evidence such as assignment letters or leave from each employee. Overall, the findings in this table indicate that although the performance of internal administrative services in the administration department has been running quite efficiently and quickly, optimization of task completion still depends heavily on employee discipline in attaching physical files and the accuracy of operational data synchronization in the field.

**Table 3: Evaluation of the Quality Dimensions of the Personnel System Based on ASN Perceptions**

| No | Evaluation Dimensions (DeLone & McLean) | Field Assessment Indicators                                               | Real Conditions at the Bojonegoro PSBR UPT                                                                                                                                                                                                                                                         |
|----|-----------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | System Quality                          | Ease of access, user friendly display, & application stability.           | The e-Master and e-Presence application displays are easy to understand, but the e-Presence server is prone to slowness during work hours, and there are restrictions on the e-Presence application server's operating hours, which are open from 08.00–14.30 and 16.00.                           |
| 2  | Information Quality                     | Accuracy, completeness, & real-time data updates.                         | ASN profile data in e-Master is accurate and complete, while the recapitulation of daily employee attendance can only be checked by the UPT e-presence facilitator.                                                                                                                                |
| 3  | Service Quality                         | The speed of TU staff response in validating & assisting employee issues. | The Administrative Staff is responsive in providing technical assistance if there are ASN who experience attendance failures or problems uploading files, especially since the implementation of the attendance system using facial recognition which has experienced many failures for employees. |

*Source: 2026 Research Data (Processed)*

Based on the evaluation of the personnel system quality dimensions using the DeLone & McLean framework at the Bojonegoro PSBR UPT, ASN perceptions indicate that the three main dimensions, namely system quality, information quality, and service quality, have their own characteristics and operational challenges. In the system quality dimension, the e-Master and e-Presence application displays are considered quite easy to understand (user-friendly), but the stability of the e-Presence server is still an obstacle because it is prone to slowness during peak hours when coming in or leaving work, coupled with the limitation of the e-Presence application server operating hours which are only open from 08.00 to 14.30 and at 16.00. Meanwhile, in the information quality dimension, the ASN profile data stored in the e-Master application is considered accurate and complete, although related to the daily attendance recapitulation, access to checking is limited because it can only be done by the UPT e-presence facilitator. Furthermore, in terms of service quality, employees assessed that the Administrative staff had demonstrated good responsiveness and were quick to respond in providing technical assistance to ASNs experiencing attendance failures or problems uploading files. However, new challenges emerged after the implementation of the facial recognition attendance system, where many employees experienced failures in e-attendance, requiring intensive handling by the administrative management. Overall, the findings of this evaluation indicate that although the application interface and responsive performance of the Administrative staff have been running well, strengthening server capacity, flexible access times, and the reliability of facial biometric features remain crucial prerequisites for improving user comfort and effectiveness in utilizing the digital personnel system within the Bojonegoro PSBR UPT. (Ansyar & Yunita, 2026).

## **CONCLUSION**

This study shows that the implementation of the e-Master and e-Presence personnel systems at the Bojonegoro PSBR UPT has made a positive contribution in supporting digital transformation in internal personnel administration governance, although it still faces various technical and operational challenges. In general, the time efficiency in completing administrative tasks such as updating ASN profiles, attendance recapitulation, and SKP management has met or exceeded the set targets, reflecting the high productivity of administrative staff. However, the quality of the information system is still hampered by server instability, application access time limitations, and technical issues with the facial biometric recording feature that make it difficult for employees. Evaluation using the DeLone and McLean theory revealed that although the application interface is relatively user-friendly and the administrative staff's responsiveness in handling technical obstacles is very good, system reliability remains a crucial factor that needs to be improved.

Major obstacles such as connectivity disruptions, system errors in GPS and facial recognition features, and the complexity of tiered verification at the

external level indicate the need for a more robust information technology infrastructure. The operational success of this system not only depends on the sophistication of the software, but is also greatly influenced by employee discipline in attaching supporting physical files and optimizing data synchronization between work units. Thus, even though the digital transition has been underway, increasing server capacity, improving biometric features, and flexibility in operational access are absolute prerequisites for achieving truly responsive, accountable, and transparent personnel governance within the Bojonegoro PSBR UPT environment. Strategic recommendations need to focus on improving digital infrastructure so that the system can operate in real-time and reliably, which will ultimately strengthen the effectiveness of ASN HR management in supporting bureaucratic reform in local government agencies, so that technical obstacles that hinder workflow can be minimized sustainably to realize efficient administrative governance in accordance with the Digital Era Governance paradigm that demands technology integration in every line of bureaucratic operations.[Click or tap here to enter text.](#)

### **Suggestion**

Based on the evaluation of the implementation of the e-Master and e-Presence personnel systems at the Bojonegoro PSBR UPT, it is recommended that relevant agencies immediately strengthen their information technology infrastructure by increasing the capacity and stability of the main server to overcome the obstacles of slow access and network disruptions during peak hours. In addition, the application developers and the East Java Provincial Social Service need to optimize and regularly improve the facial biometric recording features and GPS coordinates that often experience errors, so that the daily employee attendance process can run more accurately and with minimal obstacles. Management also needs to review the policy of limiting the e-Presence server's operating hours to provide better flexibility for employees carrying out outside duties. In addition to improving the technical aspects of the software, improving internal administrative discipline for all State Civil Apparatus (ASN) in terms of the timeliness of submitting supporting physical files and updating their independent profiles is absolutely essential. Finally, to strengthen the quality of back-office administrative services, the Administration Sub-Division needs to conduct technical assistance activities or intensive periodic training for employees to minimize system operational errors and ensure that individual performance data synchronization with the organizational Performance Tree can run in a harmonious, transparent, and accountable manner.

### **REFERENCES**

- Ansyar, S., & Yunita, H. (2026). E-Presence Information System and Digital Performance Recap for Effective Personnel Management. *INNOVATIVE: Journal of Social Science Research*, 6(1), 223–233.
- Damana, IPP, Candiasa, IM, & Gunadi, IGA (2023). Analysis of the Success of Online Information Systems (SION) Using the Delone and Mclean Method. *MALCOM*:

- Indonesian Journal of Machine Learning and Computer Science, 3(2), 331–338.  
<https://doi.org/10.57152/malcom.v3i2.958>
- Dharmawan, EW, Warsono, H., Kismartini, K., & Astuti, RS (2024). E-government as a reform solution for creating good governance. JPPI (Jurnal Penelitian Pendidikan Indonesia), 10(4), 920–927. <https://doi.org/10.29210/020244892>
- Gustiyari, W., Dedi Priantana, R., & Satria Saputra, D. (2022). SUCCESS ANALYSIS OF REGIONAL MANAGEMENT INFORMATION SYSTEM (SIMDA) BASED ON THE DELONE AND MCLEAN 2003 MODEL (STUDY OF LANGSA CITY REGIONAL APPARATUS WORK UNITS). Scientific Journal of Accounting Economics Students (JIMEKA), 7(1), 56–65.
- Hutasoit, DM, Purnamaningsih, PE, & Wijaya, KAS (2023). The Effectiveness of Implementing Online Attendance (Face Detector) to Improve Employee Discipline at the Bali Province Human Resources Development and Personnel Agency (BKPSDM). Public Dynamics: Journal of Management and Business Administration, 1(3), 174–186. <https://doi.org/10.59061/dinamikapublik.v1i3.278>
- Ismawaty, A., Bonggasau, E., & Gaming S, H. (2025). Arus Jurnal Sosial dan Humaniora (AJSH) Effectiveness of Digital Attendance Implementation for State Civil Apparatus. Arus Jurnal Sosial dan Humaniora (AJSH), 5(2), 2627–2638. <http://jurnal.ardenjaya.com/index.php/ajsh><https://jurnal.ardenjaya.com/index.php/ajsh>
- Japarudin, & Solong, A. (2025). Effectiveness of Si Patuh-Based Attendance in Supporting Work Discipline of Civil Servants at the Transmigration, Manpower and Industry Service of East Luwu Regency. Quantum Public Journal, 2(1).
- Lubis, DW, & Veri, J. (2025). THE EFFECT OF PERSONNEL MANAGEMENT INFORMATION SYSTEMS ON THE QUALITY OF PERSONNEL ADMINISTRATION SERVICES: SYSTEMATIC REVIEW. Jayakarta Journal of Informatics Management, 5(2), 135–141. <https://doi.org/10.52362/jmijayakarta.v5i2.1802>
- Nicola, W., Suryanto, TLM, & Faroqi, A. (2022). DeLone and McLean as a Measurement Model for Covid-19 Response Information Services. Jutisi: Scientific Journal of Informatics Engineering and Information Systems, 11(2), 371–382. <https://lawancovid-19.surabaya.go.id>.
- Panggabean, C., & Meilani, NL (2023). DIGITALIZATION OF PUBLIC SERVICES IN PEKANBARU CITY (CASE STUDY OF PEKANBARU APPLICATION IN THE HANDS OF GOVERNANCE IN THE DIGITAL ERA REVIEW). SENTRI: Scientific Research Journal, 2(3), 722–728.
- Permatasari, CA, Suryanto, TLM, & Wulansari, A. (2022). Analysis of the Success of Integrated Management Information Systems in Higher Education Using the DeLone and McLean Model. Jutisi: Scientific Journal of Informatics Engineering and Information Systems, 11(2), 415–422.
- Regyna A, S., & Alie, RM (2024). Effectiveness of Implementing Civil Servant Attendance at the Malang Regency Transportation Agency, East Java Province. Manuhara Journal: Center for Management and Business Science Research, 2(4), 234–241. <https://doi.org/10.61132/manuhara.v2i4.1230>
- Rifaldi, M., Kamariyah, S., Devy Pramudiana, I., Khairul Anwar, M., & Prahmana, KA (2025). IMPROVING WORK DISCIPLINE OF STATE CIVIL APPARATUS IN THE OFFICE OF THE BENJENG DISTRICT, GRESIK REGENCY. Moderat: Scientific Journal of Government Science, 11(2), 533–546.

- Said, LOA, Rijal, M., & Sarinah. (2026). Implementation of Public Service Digitalization Policy in Indonesia: Literature Review 2020–2025. *MJPA: Musamus Journal of Public Administration*, 8(2), 160–172.
- Septiani, T., Meilani, RI, & Inayati, T. (2023). Improving Work Productivity through the Implementation of the Employee Performance and Remuneration Information System (Sijawara). *Managerial: Journal of Management and Information Systems*, 23(2), 195–208. <https://doi.org/10.17509/manajerial.v23i2>
- Siahaan, DA (2026). Analysis of the Implementation of a Digital-Based Attendance System on the Performance of East Java “Veterans”. *Wahana Pendidikan Scientific Journal*, 12(7), 222–231.
- Syauqi, MZ, & Prasetyawan, A. (2023). EFFECTIVENESS OF APPLICATION-BASED ABSENCE “E-BUDDY” IN SUPPORTING CIVIL APPARATUS WORK DISCIPLINE (CASE STUDY OF THE DPRD SECRETARIAT OF SIDOARJO DISTRICT). *Inovant*, 1(4), 20238–20240.
- Wara, LS, Kalangi, L., & Gamaliel, H. (2021). TESTING THE DELONE AND MCLEAN INFORMATION SYSTEM SUCCESS MODEL ON THE AUDIT APPLICATION SYSTEM (SIAP) AT THE FINANCIAL AUDIT AGENCY OF THE REPUBLIC OF INDONESIA, NORTH SULAWESI PROVINCE REPRESENTATIVE OFFICE. *Journal of Accounting and Auditing Research “GOODWILL,”* 12(1), 1–15.
- Wibowo, ZB, & Askafi, E. (2026). Analysis of Management Information Systems (Pusday Application) and Work Discipline on ASN Productivity in Pesantren District, Kediri City. *Hilirisasi (Journal of Economic & Management)*, 3(1), 43–53.
- Widari, BESI, Firmansyah, M., & Singandaru, AB (2023). EFFECTIVENESS OF IMPLEMENTING GPS-BASED ONLINE ABSENCE IN EFFORTS TO IMPROVE EMPLOYEE DISCIPLINE IN THE MATARAM CITY REGIONAL SECRETARY. *Journal of Development Economic Opportunities*, 2(2), 54–62.