



Analysis of the Impact of School Administration Digitalization on the Efficiency of Administrative Staff Performance at SMKN 1 Tanjung Pura

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ABSTRACT

This study aims to analyze the impact of school administration digitalization on the efficiency of administrative staff (educational personnel) performance at SMKN 1 Tanjung Pura. In the era of educational disruption, the transformation from conventional management to integrated digital applications is often hindered by technical constraints and human resource readiness. This research is motivated by three main problems in the field: first, the high workload of administrative staff due to simultaneous manual and digital dual-reporting schemes; second, the lack of sustainable technical training that triggers technological anxiety (technophobia) in some senior staff; and third, the limitations of computing stability infrastructure and local server security that hinder daily operational smooth flow. A descriptive qualitative approach with a case study design was used in this study. Data collection techniques included participatory observation during internship activities, semi-structured in-depth interviews with the Head of Administrative Affairs and administrative staff, and documentation of administrative performance reports. The results of the study show that the implementation of digital platforms such as Dapodik, SipLah, and E-Rapor is significantly able to cut down student archive and financial processing time, eliminate physical document accumulation, and accelerate data retrieval. Nonetheless, optimizing institutional efficiency requires a structured technical training paradigm, standardization of data management standard operating procedures (SOP), and sustainable computing infrastructure upgrades to mitigate the psychological and technical barriers of administrative personnel.

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INTRODUCTION

National vocational education institutions essentially require mature managerial governance to achieve comprehensive institutional efficiency. Along with the wheel of technological disruption, the Ministry of Education, Culture, Research, and Technology massively mandates the integration of single-window digital platforms. The implementation of systems such as the Educational Data Center (Dapodik), School

Procurement Information System (SipLah), School Activity and Budget Plan Application (ARKAS), to E-Rapor is designed to streamline bureaucratic burdens and minimize paper use (paperless policy).

In a local context, SMKN 1 Tanjung Pura, located in Langkat Regency, North Sumatra, is one of the largest public vocational education institutions serving 942 students divided into 28 study groups (rombel). With such a massive volume of student data, the demands for accuracy and speed of administrative management in the school's Administrative Affairs (TU) unit become extremely high. However, based on direct observations conducted during management internship activities in the administrative unit of SMKN 1 Tanjung Pura, the transformation from conventional management to integrated digital applications has not run completely ideally because it faces highly complex operational obstacles in the field.

The first and most fundamental problem is the emergence of workload duplication due to the immature transition period of the reporting system. The real conditions in the field show that the administrative staff of SMKN 1 Tanjung Pura are required to input the realization report of School Operational Assistance (BOS) funds into the ARKAS system digitally. However, at the same time, internal and external bureaucracy at the regional level still demands conventional physical document archiving in the form of hundreds of bundles of expenditure receipts and disposition sheets. Due to the absence of standardization for digital data extraction procedures that are fully recognized for regional audits, administrative staff must spend 3 to 4 hours of total daily working hours just to repeatedly match physical files with digital inputs to avoid human error.

The second problem concerns the gap in digital competence between generations of administrative staff, which triggers psychological resistance in the form of technological anxiety (technophobia). Based on observations in the administrative room, the ranks of educational personnel in this school are dominated by senior staff who are accustomed to conventional typing methods. When ministry application features undergo highly dynamic version updates (patches) every semester, the school is not facilitated with intensive, continuous managerial training programs. This condition causes senior staff to experience cognitive barriers and choose to avoid digital application operational tasks. The tangible impact is a disproportionate inequality of workload distribution, where the heavy task of uploading crucial school data (Dapodik and E-Rapor) ultimately accumulates excessively on a small portion of young temporary staff (honorer) who are considered more tech-savvy.

The third problem acting as a functional barrier is the reliability of hardware infrastructure and the instability of the local internet network. Out of the total existing computer laboratories, the condition of the facilities at the school is still dominated by laboratory rooms with minor to moderate damage status. In the administrative room

itself, the operator's computer specifications are considered inadequate for processing national mass data synchronization. During peak hours approaching the deadline (cut-off date) from the ministry, the internet network in this suburban area of Tanjung Pura frequently experiences fluctuations, triggering system delivery report failures (server crashes). This circular technical barrier forces operator staff to work overtime outside normal office hours to find down-times in national server traffic, which, if delayed, risks administrative sanctions in the form of delaying the disbursement of the school's BOS funds.

Through identifying the complexity of the administrative governance barriers above, conducting critical and empirical fact-based scientific research in the field becomes highly crucial. Therefore, this study is specifically designed to discuss the topic "Analysis of the Impact of School Administration Digitalization on the Efficiency of Administrative Staff Performance at SMKN 1 Tanjung Pura" to formulate adaptive policy recommendation drafts for strengthening regional educational personnel competence.

RESEARCH METHOD

This study uses a descriptive qualitative approach with a case study design. This approach was chosen because it is considered the most effective for detailing and deeply understanding how daily work patterns, technical obstacles, and the psychological conditions of administrative (TU) staff are affected after the implementation of the school administration digitalization policy (Moleong, 2021). The research was carried out directly at the Administrative Affairs unit of SMKN 1 Tanjung Pura, Langkat Regency, North Sumatra. In this case, the researcher acted as the primary instrument present directly in the field actively by positioning themselves as part of the office ecosystem during internship or Field Experience Practices activities (Sugiyono, 2022). This direct presence aims to allow the researcher to observe in real life how the daily workload of staff is distributed, the data synchronization process to the central server, and the constraints that arise in the field without any manipulation of the research subjects' conditions (Moleong, 2021).

To obtain valid data and avoid bias, the selection of informants in this study was carried out deliberately (purposive sampling) based on their real roles in school administration (Sugiyono, 2022). The research subjects consisted of the Head of Administrative Affairs as the internal supervisor, two young operator staff who handle the Dapodik and ARKAS applications, and two senior administrative staff representing conventional employees. The data collection process integrated three main techniques in the field, namely participatory observation, in-depth interviews, and documentation studies (Sugiyono, 2022). Observations were made by directly observing staff activities in front of computers from 07:30 to 14:30 WIB, while in-depth interviews were

conducted face-to-face with informants after office hours using semi-structured guidelines. In addition, documentation studies were conducted by collecting formal school documents such as Employee Task Assignment Decrees (SK), ARKAS reporting drafts, and physical student archive registration books (Yusuf, 2019).

The raw data collected from the field were then systematically processed by adapting the circular interactive analysis model (Miles et al., 2014). This analysis stage started with data condensation to select and discard interview information irrelevant to the focus of staff work efficiency. The next step was data display by summarizing the selected data into a chronological scientific narrative form so that the relationship between problems is easy to understand. The final stage was conclusion drawing to formulate meaning from the displayed data, which was then repeatedly validated to be free from the researcher's subjective bias (Miles et al., 2014). Finally, to guarantee the credibility of the qualitative data produced, this study applied source triangulation and technique triangulation techniques (Moleong, 2021). Triangulation was carried out by matching the results of the interview with the Head of Administrative Affairs with the honest testimony of the operator staff, then re-verifying it with real facts found by the researcher during daily work observations and evidence of school monthly report documents (Yusuf, 2019).

RESULT AND DISCUSSION

Advantages of Using Digital Administration Systems in Schools

The implementation of digital systems at SMKN 1 Tanjung Pura such as Dapodik, SipLah, ARKAS, and E-Rapor actually brings many positive impacts to the smooth execution of daily tasks. Based on direct field observations, this computer system has proven to make the work of Administrative Affairs (TU) staff much faster, especially in terms of retrieving student documents. Before the digital system existed, if alumni came asking for diploma legalization or if a student wanted to transfer schools, the administrative staff had to search through physical archives in the back warehouse. This manual search process often took hours, or even days if the document was misplaced among other stacks of paper.

After using the Dapodik application, the administrative staff only need to type the student's name or national student identification number into the computer, and all the required data appears instantly within seconds. In addition, school financial reports and infrastructure data can also be sent directly to the provincial education office electronically without having to deliver physical files out of town. This makes school administrative governance more open, orderly, accountable, and saves storage space. This transformation from manual to digital systems has proven to boost school service performance and cut down bureaucratic workflows that used to be very long and convoluted (Sanjaya, 2022:140).

Dual Workload Constraints and Internet Network Issues

Although digital applications help speed up work, administrative staff at SMKN 1 Tanjung Pura face a major obstacle in the form of dual workloads. This problem occurs because the school has not fully dared to eliminate the manual paper-based archiving system. As a concrete example, when administrative staff input the School Operational Assistance (BOS) fund report into the ARKAS application, they are still required to compile, paste receipts on folio paper, request wet signatures, and bind the physical document bundle into several copies as evidence for regional audit team examinations. Due to these two parallel reporting paths running together, administrative staff have to spend 3 to 4 hours every day just matching numbers on physical paper with numbers on the computer screen so that there are no discrepancies.

The existence of these two parallel workflows actually erodes time efficiency because it forces employees to work twice for the same matter. According to office management theory, the lack of clear boundaries between manual and digital systems results in an expansion of cognitive burden for employees, which, if left unchecked without any simplification of physical files, will trigger job burnout and reduce public service productivity in schools (Kotler & Keller, 2021:210).

In addition to the dual workload, a technical obstacle that severely disrupts office performance is the fluctuating internet connection. Because the location of SMKN 1 Tanjung Pura is on the outskirts of the city (suburban), the school's internet network is often unstable. This obstacle becomes very severe as the national data closing deadline (cut-off date) approaches. The school's internet network suddenly slows down or even disconnects because millions of school operators across Indonesia access the central server simultaneously. This technical glitch drastically reduces work time efficiency, forcing school operator staff to frequently work overtime until the early hours of the morning in the office to find times when central server traffic is low so that school data can be successfully sent to the ministry (Darmono, 2020:114).

Task Inequality Issues Between Senior and Young Staff

The digitalization of administration also triggers a new social problem in the distribution of work tasks within the administrative room of SMKN 1 Tanjung Pura. The ministry's application always updates its features and display menus almost every change of semester, while the administrative staff at this school have never received profound official training from the relevant office after these updates. The absence of an evenly distributed capability development program causes senior administrative staff, who for decades have been accustomed to manual methods, to experience confusion and high anxiety when they have to operate computers (Mulyasa, 2021:39).

Senior staff feel afraid of making mistakes in entering student data which could have fatal consequences, such as students not being registered for exams or school assistance funds not being disbursed. To avoid the risk of errors, senior staff eventually

choose to avoid computer tasks and hand over the operational responsibility of digital applications to younger temporary honorary staff because they are considered more tech-savvy.

Consequently, an extremely imbalanced distribution of workload occurs within the office (Bafadal, 2022:62). The heavy task of managing the school's four main applications (Dapodik, SipLah, ARKAS, and E-Rapor) ends up accumulating entirely on just one or two young staff members. Meanwhile, senior staff experience a decline in work function and only handle standard correspondence or dispositions that still use manual paper. This unfair division of labor makes the working atmosphere less productive and hinders the achievement of overall organizational efficiency targets in the school.

CONCLUSION

Based on the results of the analysis and discussion regarding the impact of school administration digitalization on the performance efficiency of educational personnel at SMKN 1 Tanjung Pura, it can be concluded that the implementation of digital platforms (Dapodik, SipLah, ARKAS, and E-Rapor) plays a very important role as a cutting-edge instrument in cutting bureaucracy, accelerating real-time student archive data retrieval, and fostering institutional financial governance transparency. This acceleration of cloud computing has proven to bring a positive impact on increasing the institutional efficiency index functionally.

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