



## The Effectiveness of the Implementation of an Online-Based New Student Admission System at SMA Negeri 2 Percut Sei Tuan

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### ABSTRACT

This study discusses the effectiveness of the implementation of the Online-Based New Student Admission System (SPMB) at SMA Negeri 2 Percut Sei Tuan. The problems in this study are servers that often experience errors, as well as parents of students who are not literate about digitalization and current technological developments that hinder the implementation of online SPMB. The purpose of this study is to determine the effectiveness of the implementation of online SPMB, obstacles, and efforts in its implementation at SMA Negeri 2 Percut Sei Tuan. This research uses the theory of public administration, the theory of effectiveness, and the theory of the online registration system. The research method uses a qualitative research design. The results of the study show that the implementation of an online-based new student admission system at SMA Negeri 2 Percut Sei Tuan has been effective, as can be seen from the achievement of the goal of implementing online SPMB, namely facilitating the performance of the committee, increasing transparency during the registration process, easy access to information that anyone can see from the web used, and reducing mal-administrative practices. However, in its implementation, there are still several obstacles, namely servers that experience errors, parents of students who are not literate in digitalization, and there are still data manipulation experiments.

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## **INTRODUCTION**

In this all-digital era, almost all jobs use digital technology, both in government and in the world of education. Education is the first step to forming quality human resources. In this digital era, the New Student Registration (PPDB) has used an online system through the official platform/web provided by the education office.

Along with changes in national policies regarding the new student admission system, the Regulation of the Minister of Primary and Secondary Education Number 3 of 2025 concerning the New Student Admission System (SPMB), is still implemented using four admission channels and announced through official digital platforms. According to Rahmawati (2021), the factors of transparency, fairness, and the use of information technology in the online registration system are needed to make this policy a success. SPMB was formed with the aim of ensuring that every child, especially from underprivileged families, can get a quality education without discriminating backgrounds, by prioritizing 3T (frontier, outermost, disadvantaged) areas through regional policy flexibility.

The New Student Admission System (SPMB) is not only about zoning, but ensures that the schools available in one region are truly of high quality, including coaching, evaluation, curation of student achievements, technology integration, and flexible authority for local governments. According to Arifa (2024), some of the obstacles faced in accepting new online-based students include registration platforms that are difficult to access, mistakes made by students' parents in entering data that cause file verification errors, and poor internet network access. In North Sumatra Province, especially Deli Serdang Regency, SMA Negeri 2 Percut Sei Tuan is one of the schools with quite a lot of interest and shows progress every year. However, the implementation of online registration is still not optimal, due to the lack of information that reaches the parents of prospective students regarding the registration procedure. Based on initial observations, there are still many obstacles experienced by parents of prospective students, new student admission committees, and school operators, such as difficulty accessing digital platforms, complicated registration series, and network constraints that complicate the file verification process.

Based on this description, this article aims to examine the effectiveness of the implementation of the online-based New Student Admission System (SPMB) at SMA Negeri 2 Percut Sei Tuan and identify obstacles and efforts in its implementation. This research is focused on the effectiveness of implementation, obstacles, and efforts made by schools to achieve the effectiveness of the implementation of online-based SPMB. Theoretically, this research is expected to add to the treasure of public administration science, and practically it is expected to be an evaluation material for schools and education offices in improving the technical implementation of SPMB in the future.

## LITERATURE REVIEW

### *Public Administration*

In the perspective of classical theory, Weber (in Zein & Septiani, 2023) views public administration as a concept closely related to bureaucracy as a rational form of organization, although he recognizes that bureaucracy is inseparable from various weaknesses. Bureaucracy plays a role as a state instrument that is responsible for implementing public policies to meet the interests of the community. Meanwhile, Frederickson (in Sarjito, 2024) formulates public administration as governance, which includes the diversity of organizations and institutions involved in public activities, contemporary pluralism, cross-institutional leadership, and importance and legitimacy for the achievement of public goals.

### *Effectiveness*

The term effectiveness comes from the word "effect" which indicates the relationship between an action and the outcome it causes. A program is considered effective if the set goals are successfully achieved through a planned process. According to James L. Gibson et al., effectiveness indicates the level of success of an organization in achieving goals through cooperation between members. Keban (in Engka & Natsir, 2024) added that an organization is considered effective if it is able to realize the goals and values in the organization's vision. According to Richard M. Steers (in Engka & Natsir, 2024), organizational effectiveness is influenced by organizational characteristics, environmental characteristics, work characteristics, and management policies and practices. According to Richard M. Steers (in Hasbullah, 2022), there are three indicators of effectiveness, namely: (1) Achievement of goals, namely a series of activities to realize goals that have been set through clear stages, with the aspect of time as one of the important factors; (2) Integration, namely the ability of the organization to carry out planned activities through good coordination and clear implementation procedures/techniques; and (3) Adaptation, namely the ability of the organization to adapt to changes in the internal and external environment, including the readiness of human resources to follow technological developments.

### *Digital Governance and Online Registration System*

Digital governance is a governance concept that regulates the use of information and communication technology to support organizational management, including policies, procedures, operational standards, and regulations that ensure digital transformation takes place effectively, efficiently, and safely, including data protection and cybersecurity (Sarinah, 2025). Meanwhile, according to James O'Brien (2013), the online registration system is a collection of elements that are integrated with each other to achieve certain goals through three main components, namely input (data filling), processing (data verification), and output (graduation results), which are supported by human resources, hardware, software, communication networks, data, and interconnected procedures.

## METHODOLOGY

This study uses a qualitative method with a case study approach (Creswell, 2017) to explore the social and subjective reality regarding the implementation of an online-based New Student Admission System (SPMB). The research was carried out at SMA Negeri 2 Percut Sei Tuan, Percut Sei Tuan District, Deli Serdang Regency, in 2026, considering that this school is not widely known to the public outside the sub-district but has implemented an online-based SPMB.

The data source consisted of primary data obtained through interviews and observations of eight informants selected using purposive sampling and random sampling techniques, namely curriculum staff/validator team, curriculum staff/socialization team, vice principal for student affairs, school operator, two parents of students, and two students; as well as secondary data obtained through documentation, government publications, and scientific references. Data collection techniques were carried out through participant observation, semi-structured interviews, and documentation (Creswell, 2015). Data analysis uses the Miles and Huberman model (in Hasbullah, 2022) which includes data reduction, data presentation, and verification/conclusion drawn

## RESULT AND DISCUSSION

### *The Effectiveness of the Implementation of the Online-Based New Student Admission System (SPMB) at SMA Negeri 2 Percut Sei Tuan*

The effectiveness of the implementation of online-based SPMB at SMA Negeri 2 Percut Sei Tuan was analyzed through three indicators, namely goal achievement, integration, and adaptation. In terms of achieving goals, the implementation of online SPMB aims to speed up the registration process, increase transparency, and facilitate the performance of the committee. The results of the study show that this goal has been achieved through a two-stage registration system and a website that can be accessed by anyone so that there is no longer a "deposit" practice.

*"... for the implementation of registration, it is divided into 2 stages, the first is for the domicile path in accordance with location mapping, affirmation path, and mutation path for students whose parents are mutated from outside the city such as ASN and TNI." (Maria Ulfah Manik, Curriculum Staff/Validator Team, interview)*

The results of observations and interviews show that the implementation of online-based SPMB is very helpful in easing the performance of the committee so as to save time and costs and reduce the number of parents of students who come directly to the school, as well as increase transparency because the website used can be accessed by anyone.

*"... Of course, if you look at the purpose of creating this new online-based student admission system, it is to make the work of the registration committee easier and at the same time save costs and time, as well as reduce the queue and the number of parents of students who come to school." (Rahayu Utari, School Operator, interview)*

However, there are still parents of students who think manual registration is easier because the process of filling in data online is considered convoluted and the file verification process takes quite a long time, while some other parents

consider online registration to be easier because it can be done from home at any time.

*"... Manual registration is still easier to do because just fill out the registration form and the requirements are clear, then wait for the file verification is also a bit long." (Rika Irmayani, parents of students, interview) In the integration aspect, the school has carried out socialization to schools and villages related to online registration procedures, as well as providing complaint posts and emergency contacts for parents of students who experience difficulties.*

*"... We the school conducted socialization to schools and villages related to this online SPMB, and we also provided socialization posts at schools to help parents of students who had difficulty registering." (Fitri Utami, Curriculum Staff/Socialization Team, interview). In terms of adaptation, schools have prepared themselves through technical training organized by the Education Office as well as internal workshops for school committees and operators before the implementation of online SPMB, so that all teams have adequate readiness.*

#### *Obstacles Faced by SMA Negeri 2 Percut Sei Tuan to Achieve the Effectiveness of Online-Based SPMB Implementation*

The main obstacles found include servers/websites that often experience errors due to the high amount of data entered during the registration period, the lack of detailed data filters so that data manipulation experiments are still found, the low digital literacy of some students' parents, the data verification process that takes quite a long time, and more requirements than manual registration.

*"... At the time of registration, the server or website used is often down or has errors so that this becomes an obstacle, then there are still many parents of students who are not literate in digitalization... When validating student data, we have found manipulated report card score data." (Maria Ulfah Manik, SPMB Validator Team, interview)*

These obstacles cause a low level of transparency and a decrease in the trust of students' parents in the school, so the committee must work more carefully in checking every document that comes in.

Efforts made to overcome these obstacles include: first, quick action to report to the Education Office if the server experiences a disruption; second, the provision of complaint posts and emergency contacts for parents of students who experience difficulties; and third, more thorough document examination and reporting to the Education Office if manipulated data is found.

Referring to Richard M. Steers' theory of effectiveness, the success of the implementation of online-based SPMB at SMA Negeri 2 Percut Sei Tuan can be analyzed through three indicators. In terms of achieving goals, the implementation of online SPMB has been able to simplify the registration process, reduce the number of parents who come to school, increase transparency, and avoid administrative malpractices, although the achievement of these goals has not been fully maximized due to server constraints and digital literacy.

In the integration aspect, the school has built communication and coordination with the community through socialization to schools and villages,

the provision of complaint posts, and emergency contacts, in line with Steers' view that the better the communication process carried out, the greater the chance of achieving organizational goals. In terms of adaptation, SMA Negeri 2 Percut Sei Tuan has shown readiness to face changes in the service system from conventional methods to digital-based systems, through technical training organized by the Education Office and internal workshops, in line with the concept of digital governance which emphasizes the importance of using digital technology effectively, transparently, and accountably.

The implementation of this online-based SPMB also supports the concept of an online registration system according to James O'Brien through three indicators, namely input in the form of filling in student data through the website provided, the process in the form of file verification by the operator and validator team, and the output in the form of announcement of graduation results that can be accessed directly through the website. Thus, the implementation of online-based SPMB at SMA Negeri 2 Percut Sei Tuan has provided real benefits in improving the quality of school administration services and transparency.

However, this study found obstacles in the form of server disruptions, limited digital literacy of some students' parents, length of the data verification process, and data manipulation efforts by some registrants. These barriers show that organizations still face challenges in optimizing goal achievement, integration, and adaptation, and that the success of digital transformation depends not only on the availability of technology, but also on infrastructure readiness, data security, and the ability of users to leverage these technologies.

## **CONCLUSIONS AND RECOMMENDATIONS**

This study concludes that the implementation of the online-based New Student Admission System (SPMB) at SMA Negeri 2 Percut Sei Tuan has been running effectively, but not optimally. This can be seen from the achievement of the program's objectives, which are to simplify the registration process, reduce the committee's workload, increase transparency, and accelerate access to information for the public, which is supported by socialization, help posts, and training for school committees and operators. However, the implementation still faces obstacles in the form of server disruptions, limited digital literacy of some students' parents, the length of the data verification process, and attempts to manipulate data by some registrants.

Based on these findings, this study recommends that SMA Negeri 2 Percut Sei Tuan increase socialization to parents of students through video tutorials, illustrated guides, and easy-to-understand language, and carry out short training before registration opens. The North Sumatra Provincial Education Office is also advised to work with system managers to strengthen server capacity and develop better data verification features. The implications of this study show that strengthening server infrastructure, mentoring for parents who are not yet digitally literate, and equitable distribution of internet access are needed so that the implementation of online-based SPMB can run more optimally and provide greater benefits to the community.

## **FURTHER STUDY**

This research has limitations, including the limitation of research time so that the results obtained are not optimal, the difficulty of finding informants who are willing to be interviewed so that the scope of observation is limited, and the subjectivity of the informant which causes several statements to contradict each other. This study was also only conducted in one location so that it could not compare the implementation of online-based SPMB in other schools, and only used three effectiveness indicators so that other effectiveness indicators could not be researched. Therefore, further research is recommended to expand the location and number of research informants.

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