

Administrative Justice in Student Admission in Disadvantaged Regions: A Case Study of SPMB Implementation in West Nusa Tenggara

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Abstract

Digitalized student admission systems are increasingly promoted as instruments for transparency, efficiency, and accountability. However, their implementation in geographically disadvantaged regions may generate new forms of exclusion when families have unequal access to digital infrastructure, information, administrative assistance, and institutional support. This study investigates administrative justice in the implementation of Indonesia's New Student Admission System (SPMB) in disadvantaged, frontier, and outermost areas of West Nusa Tenggara. The study focuses on the experiences of students and parents who encounter geographical, technological, and administrative barriers during the admission process. Using a qualitative case study design, data are examined through the concepts of procedural justice, accessibility, and institutional responsiveness. Particular attention is given to the role of teachers, schools, and local governments in assisting families with registration and documentation. The study argues that formal digital equality does not necessarily create substantive administrative equality. In remote communities, equitable admission requires differentiated institutional support rather than uniform procedures. The case demonstrates that teachers may function as intermediaries between centralized digital policy and communities with limited administrative capacity. The findings contribute to debates on digital governance and education justice by highlighting the need to incorporate territorial inequality into the design of supposedly universal education policies.

[Sistem penerimaan siswa yang terdigitalisasi semakin dipromosikan sebagai instrumen untuk transparansi, efisiensi, dan akuntabilitas. Namun, implementasinya di daerah-daerah yang kurang beruntung secara geografis dapat menimbulkan bentuk-bentuk eksklusi baru ketika keluarga memiliki akses yang tidak setara terhadap infrastruktur digital, informasi, bantuan administrasi, dan dukungan kelembagaan. Studi ini meneliti keadilan administratif dalam implementasi Sistem Penerimaan Siswa Baru (SPMB) Indonesia di daerah-daerah terpencil, perbatasan, dan terluar Nusa Tenggara]

Barat. Studi ini berfokus pada pengalaman siswa dan orang tua yang menghadapi hambatan geografis, teknologi, dan administratif selama proses penerimaan. Dengan menggunakan desain studi kasus kualitatif, data dianalisis melalui konsep keadilan prosedural, aksesibilitas, dan responsivitas kelembagaan. Perhatian khusus diberikan pada peran guru, sekolah, dan pemerintah daerah dalam membantu keluarga dengan pendaftaran dan dokumentasi. Studi ini berpendapat bahwa kesetaraan digital formal tidak selalu menciptakan kesetaraan administratif substantif. Di komunitas terpencil, penerimaan yang adil membutuhkan dukungan kelembagaan yang berbeda daripada prosedur yang seragam. Kasus ini menunjukkan bahwa guru dapat berfungsi sebagai perantara antara kebijakan digital terpusat dan komunitas dengan kapasitas administratif yang terbatas. Temuan ini berkontribusi pada perdebatan tentang tata kelola digital dan keadilan pendidikan dengan menyoroti perlunya memasukkan ketidaksetaraan teritorial ke dalam desain kebijakan pendidikan yang seharusnya universal.]

Keywords: SPMB, administrative justice, digital inequality, 3T regions, West Nusa Tenggara

Introduction

The digitalization of public administration has increasingly transformed the relationship between citizens and the state. Digital systems promise faster service delivery, improved transparency, reduced administrative discretion, standardized procedures, and greater accountability. In the education sector, these promises have encouraged the development of centralized and increasingly digital student admission systems. Indonesia's transition from the *Penerimaan Peserta Didik Baru* (PPDB) framework toward the *Sistem Penerimaan Murid Baru* (SPMB) reflects this broader movement toward more structured and technologically mediated educational administration. Yet the assumption that digital procedures automatically improve fairness deserves critical examination, particularly in regions where access to the technological and institutional conditions required by the system is unequally distributed.

West Nusa Tenggara provides an important context for examining this problem. The province consists of geographically diverse and dispersed communities across Lombok and Sumbawa, with substantial differences between urban centers and rural, coastal, island, and remote areas. Digital transformation in the province has expanded, but differences in telecommunications access, digital literacy, and institutional capacity remain significant challenges. Recent research on telecommunications development in West Nusa Tenggara shows that technological growth has not eliminated disparities between more connected and less connected areas (Hartini et al. 2025). Research on digital public administration

in West Lombok likewise indicates that smart-government initiatives remain constrained by institutional and infrastructural limitations, even where digital services are formally available (Karunia 2023). Such conditions raise an important question: can a formally uniform digital admission procedure be considered administratively fair when citizens encounter fundamentally unequal conditions of access?

The problem becomes more significant because student admission is not merely an informational service. It is a consequential administrative process through which students gain access to public educational institutions. Failure to complete registration, upload required documents, understand admission pathways, verify eligibility, or respond to system notifications may result in exclusion from educational opportunities. In this sense, digital inequality can become administrative inequality. The relevant issue is not only whether a registration website is technically available but whether students and families can actually use it successfully. Digital access therefore has at least three dimensions: the availability of infrastructure, the capacity to operate technology, and the institutional support available when difficulties arise.

The concept of administrative justice provides a useful framework for understanding these inequalities. Administrative justice concerns the fairness of state decision-making and service delivery, including accessibility, consistency, transparency, responsiveness, and the ability of citizens to participate meaningfully in administrative processes. Procedural justice research emphasizes that legitimacy depends not only on substantive outcomes but also on whether people experience procedures as fair and respectful (Tyler 2000; Lind and Tyler 1988). However, a digitally administered procedure presents an additional challenge: formally identical procedures may create substantively unequal participation when the resources necessary for completing them are unevenly distributed.

The digital divide literature has repeatedly demonstrated that access to information technology is not a simple binary distinction between those who are online and those who are offline. Inequality also involves differences in connection quality, affordability, device ownership, skills, frequency of use, and the capacity to convert technological access into beneficial outcomes (Hargittai 2002; van Deursen and van Dijk 2014; Warschauer 2004). In Indonesia, spatial inequalities in internet access have historically reflected differences in infrastructure, education, income, and geographical location. Salman et al. (2015), using extensive Indonesian socioeconomic data, found that internet inequalities widened across urban-rural and remote-island contexts and were associated with disparities in telecommunications infrastructure and educational services. These findings are highly relevant to digitalized student admission because remote location can influence not only connectivity but also the availability of administrative assistance.

The implementation of SPMB must therefore be examined as an interaction between technology, geography, institutions, and citizens. A registration platform may be technically efficient at the center of government while creating additional

burdens at the periphery. Families may need to travel to locations with stronger signals, borrow devices, purchase mobile data, seek assistance from teachers, or repeatedly correct administrative errors. In such circumstances, the real cost of participating in an ostensibly free public service becomes unevenly distributed. The principle of formal equality—one system and one procedure for all—may therefore conflict with substantive administrative equality.

This article focus on how should administrative justice be understood in the implementation of a digitalized student admission system in geographically disadvantaged regions of West Nusa Tenggara? The study argues that administrative justice requires more than equal formal access to an online platform. It requires accessible infrastructure, comprehensible procedures, responsive institutions, alternative channels of assistance, and differentiated support for citizens facing greater territorial and technological barriers. The analysis further highlights the role of teachers and schools as frontline intermediaries who translate centralized digital requirements into accessible administrative practices for students and parents.

A first group of previous studies examines digital inequality in Indonesia and demonstrates that technological access is spatially and socially differentiated. Salman et al. (2015) found that the internet divide in Indonesia was associated with income, education, gender, age, and geographical differences, particularly between urban and rural areas and between major and remote islands. The study also emphasized the importance of district-level infrastructure and human capital. Sutrisno et al. (2024) similarly argued that the digital divide remains a major obstacle to the adoption of e-government services in Indonesia because citizens differ in technological access and competence. These studies establish that digital government cannot be understood independently of the social and territorial inequalities that structure access to information and communication technologies.

A second group of studies focuses on digital public services and governance. Karunia (2023), examining smart-government implementation in West Lombok, found that the digitalization of population administration required not only technological applications but also institutional capacity, policy support, and organizational readiness. Waliyuddin (2025) likewise demonstrates that rural digital inclusion depends on infrastructure, skills, budgetary capacity, leadership, and institutional competence. Research on inclusive public-service delivery in Indonesia further shows that proactive outreach and *jemput bola* approaches can improve accessibility for citizens in remote or low-mobility contexts (Sidiyani and Prabawati 2025). These studies are particularly relevant to student admission because they challenge the assumption that citizens should bear the full responsibility for adapting themselves to centralized digital systems.

A third group of studies examines educational inequality in remote Indonesian regions. Pratiwi and Utama (2020), in their analysis of learning services in disadvantaged, frontier, and outermost regions, found substantial variation in the ability of schools and communities to access technology-based educational services. Their research showed that unequal infrastructure generated different

forms of participation and could deepen educational inequality. Syahir (2024), examining remote villages in Sumbawa, similarly found that internet-based educational initiatives remained constrained by severe accessibility problems and the limited effective use of technological facilities. Although these studies focus primarily on educational provision rather than student admission, they demonstrate that territorial inequality affects the institutional conditions within which digital education policies operate. This article extends the literature by examining admission as an administrative justice issue rather than treating digital access solely as a problem of educational technology.

This study uses a qualitative policy case-study design. West Nusa Tenggara is selected as an analytically relevant case because of its geographical diversity, dispersed population, uneven digital infrastructure, and variation in administrative capacity between urban and more remote communities. The case allows for an examination of how a standardized digital admission policy interacts with territorial inequalities. The purpose is not to produce statistical generalization but to develop a theoretically informed analysis of administrative justice in the implementation of SPMB.

The study relies on documentary analysis and secondary empirical evidence from peer-reviewed journal articles, policy-related publications, and scholarly research published before 2026. Sources addressing digital inequality, e-government, public-service accessibility, procedural justice, street-level bureaucracy, remote education, and territorial inequality were analyzed comparatively. The analytical framework consists of four dimensions: (1) procedural fairness, concerning the clarity and consistency of administrative rules; (2) accessibility, concerning whether citizens can practically use the system; (3) institutional responsiveness, concerning the availability of assistance and corrective mechanisms; and (4) territorial equity, concerning the unequal geographical conditions under which formally universal procedures are implemented.

From Digital Equality to Administrative Inequality

Digitalized administration is frequently justified through the language of equality. A centralized platform can apply identical requirements to all applicants, reduce discretionary decision-making, and provide a single source of official information. From a narrow procedural perspective, such standardization appears fair because every applicant is subject to the same rules. Yet identical rules do not necessarily produce equal administrative burdens. The ability to comply with a digital procedure depends on prior access to technology and support.

The distinction between formal and substantive equality is central to understanding this problem. Formal equality requires that individuals be treated according to the same rules. Substantive equality asks whether those rules operate fairly when individuals begin from unequal circumstances. In a digital admission process, two applicants may face identical registration deadlines but possess very

different capacities to meet them. One may have reliable broadband, a personal smartphone or computer, digitally literate parents, and immediate access to administrative documents. Another may share a device with family members, rely on unstable mobile connectivity, lack confidence in navigating online forms, and live far from a school or government office capable of providing assistance.

The digital divide literature explains why access must be understood as a multidimensional resource. Hargittai (2002) demonstrates that inequalities persist even among individuals who are technically connected because people differ in online skills and autonomy of use. van Deursen and van Dijk (2014) similarly argue that access includes motivational, material, skills, and usage dimensions. Consequently, the existence of an internet connection does not guarantee meaningful administrative access. A student may technically have access to a mobile phone while lacking sufficient data, signal stability, knowledge of the application, or the ability to troubleshoot errors.

The Indonesian case reinforces the importance of geographical inequality. Salman et al. (2015) found that internet access in Indonesia reflected substantial urban-rural and remote-island disparities. This means that digitalized admission systems are introduced into an unequal technological landscape. The system may operate as a standardized digital infrastructure at the national or provincial level, while applicants experience it through local infrastructures that differ significantly in quality and reliability. Thus, administrative equality at the level of software does not necessarily become equality at the level of lived experience.

This distinction is especially important in disadvantaged and geographically dispersed regions. Families may have to convert a supposedly simple online process into a series of additional activities: traveling to find a signal, purchasing internet data, visiting a school for assistance, borrowing devices, or asking more digitally experienced individuals to submit applications. These additional requirements are not equally distributed. Digitalization can therefore shift administrative costs from the state to citizens. For relatively privileged users, this transfer may remain invisible because the technology functions easily. For disadvantaged users, however, it can become a significant barrier to participation.

Territorial Inequality and the Geography of Administrative Access

Administrative procedures are often designed as though the territory in which they operate is homogeneous. This assumption is particularly problematic in archipelagic and geographically diverse provinces such as West Nusa Tenggara. Distance, transportation, terrain, telecommunications infrastructure, and the location of public institutions influence the actual cost of interacting with government. A procedure that requires minimal effort in an urban center may require substantial travel and time in a remote village.

Territorial inequality affects the SPMB process in at least four ways. First, geographical location influences the availability and quality of internet

connectivity. Second, it affects access to devices and repair services. Third, it shapes proximity to institutions that can provide administrative assistance. Fourth, it influences access to information because families in remote areas may depend more heavily on schools, teachers, and local social networks than on digital government communication.

Research in Sumbawa demonstrates that accessibility challenges remain relevant to the implementation of technology-based educational initiatives. Syahir (2024) argues that remote villages experience not only technological limitations but also broader geographical, economic, and institutional barriers. This insight is significant for SPMB because online registration is embedded in the wider administrative environment of families. If a community experiences limited internet use even where infrastructure has been introduced, policymakers cannot assume that a digital admission platform will be used equally effectively.

The concept of territorial equity helps explain why uniform policy design may produce unequal consequences. Territorial equity does not require every region to receive identical services. Rather, it requires public institutions to consider the different obstacles that citizens face because of where they live. A remote community may need more assistance, more flexible service channels, or additional administrative outreach to achieve the same effective level of access available to residents of urban areas.

Digital public-service research supports this argument. Karunia's (2023) study of smart government in West Lombok shows that the success of digital administration depends on more than technological adoption; it also requires institutional readiness and governance capacity. Waliyuddin (2025) similarly identifies infrastructure, skills, budgetary resources, leadership, and administrative competence as interconnected components of digital inclusion. Therefore, territorial inequality should be understood as an institutional issue rather than merely an individual disadvantage. When a public system operates in an area with limited infrastructure, the state has a responsibility to adapt the delivery model.

This perspective changes how fairness is evaluated. A system is not fair simply because all applicants are given access to the same website. Fairness requires examining the effort required to convert nominal access into successful participation. If remote applicants consistently bear higher costs of time, travel, data, uncertainty, and administrative dependence, the policy may be procedurally uniform but territorially unequal.

Institutional Responsiveness and the Role of Schools as Administrative Intermediaries

One of the most important findings of research on digital governance is that technology does not eliminate the need for human institutions. Digital systems often create new forms of dependence on intermediaries, particularly for citizens with limited technical knowledge or administrative capacity. In the context of student

admission, schools and teachers may become critical intermediaries between a centralized policy and individual families.

Lipsky's (1980) theory of street-level bureaucracy is useful for understanding this role. Frontline public-service workers do not merely implement policies mechanically. They interpret rules, respond to practical problems, and often determine how abstract policies are experienced by citizens. Although teachers are not always formally defined as admission officials, they may perform street-level functions when assisting students with registration, document preparation, information verification, and procedural understanding.

This intermediary role can improve administrative justice. Students and parents may face uncertainty regarding eligibility categories, required documents, deadlines, or the operation of online platforms. Teachers and school administrators can translate technical procedures into understandable guidance. They can also identify students who lack devices or connectivity and organize collective assistance. In disadvantaged regions, such support may determine whether a student can participate successfully.

However, reliance on teachers also creates risks. If administrative assistance depends entirely on individual initiative, access may vary between schools and communities. Some teachers may have the time, digital competence, and institutional support to assist extensively, while others may not. This produces a new form of institutional inequality: students' ability to navigate the admission system becomes dependent on the administrative capacity of their previous schools.

For this reason, institutional responsiveness should be formalized rather than left to informal goodwill. Public authorities should provide designated assistance points, trained personnel, accessible complaint channels, and offline or hybrid alternatives where necessary. The role of schools should be supported through clear responsibilities and adequate resources. Otherwise, teachers may be expected to solve systemic problems without the authority or capacity to do so.

The importance of proactive assistance is supported by research on inclusive public-service delivery. Sidiyani and Prabawati (2025) show that *jemput bola* approaches can increase service accessibility by bringing administrative support closer to citizens who face geographical or mobility barriers. The underlying principle can be applied to SPMB: the burden should not rest entirely on disadvantaged families to reach the administrative system. Institutions should also move toward the citizen through outreach, mobile services, school-based assistance, and facilitated registration. This model represents a shift from self-service digital government to assisted digital public administration. The objective is not to reject digitalization but to ensure that digital systems remain connected to human institutions. Technology can standardize processes, while schools and local authorities provide the contextual support necessary to make participation meaningful.

Procedural Justice: Transparency, Voice, and Correctability

Digitalization can strengthen procedural justice when systems provide transparent information, traceable decisions, consistent eligibility verification, and documented administrative records. These advantages are significant in student admission, where perceptions of favoritism and opaque decision-making can undermine public trust. An electronic system may allow applicants to monitor registration status, receive notifications, and access standardized information.

Yet procedural justice requires more than transparency. Tyler (2000) emphasizes that individuals evaluate fairness partly through the quality of procedures and the treatment they receive from institutions. Lind and Tyler (1988) similarly demonstrate that procedural judgments depend on whether people believe that decision-making processes are neutral and respectful. In a digital admission system, these principles imply that applicants should be able to understand the rules, receive explanations, and seek correction when problems occur.

Correctability is particularly important. Digital systems can produce errors through incorrect data, failed uploads, mismatched records, or user mistakes. If citizens have limited opportunities to correct such problems, technological efficiency may become administrative rigidity. A family with strong digital literacy may identify and resolve an error quickly, whereas another family may not understand what went wrong. Equal rules for correcting errors can therefore produce unequal outcomes when users have different capacities to interpret the system.

An administratively just SPMB process should include multiple layers of assistance and remedy. Applicants should have clear information before registration, accessible support during registration, confirmation after submission, and effective channels for correcting administrative problems. Complaint mechanisms should not be designed solely for digitally confident users. Telephone, school-based, and in-person support may remain necessary in disadvantaged areas.

The issue of information asymmetry is equally important. A policy may be publicly available online, but this does not mean that every family receives or understands the information. Digital government research repeatedly shows that access to information depends on users' skills and institutional networks. Families with greater educational resources may monitor deadlines and policy changes more effectively than those who rely on word-of-mouth communication. Schools can reduce this inequality by acting as trusted information intermediaries.

Procedural justice therefore requires intelligibility, not merely publication. Information must be understandable, timely, and available through channels that disadvantaged communities actually use. Government agencies should evaluate not only whether information has been posted but also whether applicants have successfully received and understood it.

Beyond Uniformity: Toward Differentiated Support for Administrative Equality

The central policy implication of this study is that universal procedures should not be confused with universal capacity. A digitally standardized SPMB system may be appropriate as a technical platform, but its implementation should be differentiated according to local conditions. Equal treatment does not always mean identical treatment.

A first policy priority is the development of hybrid administrative models. Online registration can remain the central mechanism, but applicants in areas with limited connectivity should have access to supervised registration at schools, district offices, or temporary service points. This approach recognizes that digitalization and physical public services are complementary rather than mutually exclusive. A second priority is proactive assistance. Schools should be equipped to identify students who face technological or administrative barriers before the registration period begins. Information sessions, document-preparation support, and assisted registration can prevent problems from becoming exclusion. This requires a transition from a passive model—waiting for citizens to ask for help—to a responsive model that actively reaches vulnerable applicants.

A third priority is the integration of territorial indicators into policy evaluation. Authorities should monitor registration success rates, complaints, failed submissions, and assistance needs across districts and geographical categories. If remote areas consistently experience higher rates of technical difficulty or incomplete applications, this should be treated as evidence of an administrative equity problem rather than individual failure. A fourth priority is to strengthen the administrative capacity of frontline institutions. Teachers and school staff can play an essential role in bridging the digital divide, but they require training, clear guidance, and sufficient resources. Otherwise, the burden of policy adaptation will be transferred downward to institutions that are themselves unevenly resourced.

Finally, policymakers should adopt an outcome-based understanding of fairness. The relevant question is not simply whether all applicants received the same instructions. It is whether students across different geographical and socioeconomic conditions had a genuinely comparable opportunity to complete the process successfully. This approach is consistent with the broader concept of substantive equality and with scholarship showing that digital inequality concerns the capacity to obtain beneficial outcomes from technological resources (van Deursen and van Dijk 2014; Warschauer 2004).

Conclusion

The implementation of SPMB in disadvantaged regions of West Nusa Tenggara demonstrates that digitalization can simultaneously improve administrative efficiency and create new forms of inequality. A centralized online system may

provide transparent and standardized procedures, but formal procedural uniformity does not guarantee substantive administrative justice. Students and families differ in their access to reliable connectivity, devices, digital skills, administrative knowledge, information, and institutional assistance. These differences are frequently connected to geographical location and territorial inequality. Administrative justice therefore requires a broader standard of fairness. A just admission system must provide understandable procedures, effective opportunities for correction, responsive institutions, and meaningful access for applicants facing greater technological and geographical barriers. In disadvantaged communities, differentiated support is not a departure from equality; it is a condition for achieving equality in practice. The state should not assume that all citizens can interact with digital systems independently.

The case also highlights the strategic role of teachers and schools as intermediaries between centralized policy and local communities. However, such assistance should be institutionalized rather than dependent solely on individual commitment. A more equitable SPMB framework should combine digital registration with school-based assistance, hybrid service channels, proactive outreach, territorial monitoring, and strengthened institutional capacity. Ultimately, the fairness of a digital admission policy should be judged not only by whether the system operates uniformly but also by whether students from geographically disadvantaged regions can participate in it with genuinely comparable opportunities for success.

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