

EdTech-Based Educational Management Strategies in Remote Areas and Social Justice Transformation for Rural Communities

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ABSTRACT – The acceleration of educational digitalization serves as the primary pillar in overcoming learning quality disparities caused by geographical isolation in remote areas. This study aims to analyze the utilization of Educational Technology (EdTech) platforms within school operational management strategies in isolated regions while evaluating its impact on addressing educational inequality and achieving social justice. A descriptive qualitative approach using a multiple-case study design was implemented through in-depth interviews, field observations, and analysis of school operational documents. The findings indicate that successful EdTech adoption is largely determined by adaptive managerial strategies, including teacher digital literacy training, local curriculum harmonization, offline-first e-learning systems, and transparent data-analytic supervision. Integrating digital technology significantly narrows academic achievement gaps, enhances students' digital skills, and fosters local community social commitment toward children's educational continuity. This study concludes that combining responsive school management strategies with inclusive EdTech access represents the core foundation for realizing social justice and equitable national education quality in remote regions.

Keywords: edtech, educational management, remote areas, educational inequality, social justice, e-learning, educational access, school governance.

A. INTRODUCTION

The acceleration of digitalization in education has triggered a fundamental transformation in the governance and delivery of learning materials across the world. The presence of Educational Technology (EdTech) platforms offers major opportunities to overcome the geographical limitations that have long hindered equal access to quality education.

Governments and educational institutions have begun adopting e-learning systems to expand the reach of learning services to the country's remotest areas. The effectiveness of digital technology use in instructional settings depends heavily on the readiness of supporting infrastructure and the technical capability of educators in the field (Zaw & Hlaing, 2024). Improving educators' skills and engagement in operating automated systems is an essential condition for technology adaptation to run effectively (Darmawan, 2024). A more flexible restructuring of work patterns is also needed so that educational institutions can adjust to the demands of the digital era (Mardikaningsih, 2025). Like any technological innovation, EdTech implementation requires careful operational planning so that digital system investments can produce real, sustainable improvements in the quality of the teaching and learning process (Selwyn, 2016).

The gap in educational quality between urban areas and remote regions remains a fundamental challenge obstructing the achievement of social justice in Indonesia (Ramadhani, 2025). Limited learning facilities, a shortage of qualified teachers, and geographical isolation often leave students in remote areas behind in mastering knowledge and digital skills. The adoption of EdTech platforms is projected as a breakthrough solution to close the accessibility gap to high-quality learning materials instantly. Even so, conditions on the ground frequently reveal new disparities caused by uneven internet connectivity and unstable electricity supply in underdeveloped areas. An adaptive learning approach that accounts for both individual and group learning needs can serve as an alternative strategy for addressing these limitations (Kurniawan & Darmawan, 2021). School administrators in remote regions are required to devise adaptive operational strategies to cope with these physical infrastructure limitations.

Failure to anticipate these technical obstacles risks widening the quality gap in graduates across regions. Education management strategies in remote areas must be able to integrate offline-first technology solutions or periodic data synchronization to ensure the continuity of learning access for students. Managerial readiness in handling resource limitations is the key determinant of whether technology becomes a bridge toward equity or instead deepens local educational access discrimination (van Dijk, 2020).

Operational governance of schools in remote regions requires leadership adjustments that are responsive to the dynamics of digital technological change. School principals and education supervisors are required to integrate the use of e-learning systems into the local curriculum flexibly (Faisal et al., 2025). Applying a situational leadership style is considered capable of strengthening change management and improving teaching team performance in facing this digital transformation (Mardikaningsih & Darmawan, 2022). Supervision of teacher and student activity in utilizing digital platforms is an important part of the school's internal quality assurance. School management must also allocate budgets appropriately for hardware maintenance and regular digital literacy training for educators. The success of digital transformation at the school level is largely determined by the collective commitment of the entire school community in adopting a technology-based work culture (Fullan, 2015).

The dimension of social justice emphasizes that every citizen has the right to equal access to education, unhindered by social status or geographic location. Unequal access to EdTech platforms risks perpetuating the long-term economic marginalization of communities in remote areas. Children in remote regions risk losing competitiveness when entering an increasingly digital-based job market. Technology that is not managed wisely has the potential to widen disparities rather than deliver equality for all its users (Darmawan, 2024). Therefore, government policy intervention in providing subsidies for digital devices and network infrastructure becomes crucial. Fulfilling the right to quality education is a real manifestation of the state's commitment to educating the nation fairly and equitably (Subrahmanian, 2005).

Integrating learning technology in isolated regions also requires the active involvement of local communities and parents. Public understanding of the benefits of using digital platforms in children's learning processes needs to be continuously improved. Distance learning patterns also affect the dynamics of social relationships and the psychological condition of children during the learning process at home (Darmawan, 2023). Family support in accompanying children while accessing digital learning materials greatly influences the level of learning participation. School administrators need to build effective communication with local community figures to align digital school activities with local cultural values. A harmonious partnership between schools and communities becomes a supporting pillar for the sustainability of education digitalization programs in the region (Epstein, 2018).

Evaluation of the effectiveness of EdTech implementation in remote areas must be conducted periodically using measurable and objective performance indicators. Measurement should not be limited to the level of device ownership but should also cover improvements in academic learning outcomes and student character development (Pudin et al., 2024). A number of key factors influencing organizational effectiveness also need to be taken into account so that evaluation results reflect the overall condition of the school (Darmawan, 2024). Evaluation data is used by local education offices to refine resource allocation strategies and teacher training program interventions. Transparency in digital school performance data serves as a means of public accountability for education stakeholders. This evidence-based approach ensures that technology adoption genuinely adds value to the classroom learning process (Wastiau et al., 2013).

Technical challenges in operating EdTech platforms in isolated regions are often worsened by the limited availability of local information technology experts. When disruptions occur in the e-learning system or hardware damage arises, the learning process can be halted for an extended period. Schools in remote areas need responsive technical support from relevant agencies or technology service providers. Teachers' level of self-confidence in facing technological change also determines how quickly they adapt to newly implemented systems (Mardikaningsih & Darmawan, 2022). The establishment of a mobile technical assistance unit is a pragmatic solution for

overcoming system maintenance obstacles in the field. The reliability of technical support determines the level of trust teachers and students place in technology as the primary medium of learning (Tondeur et al., 2012).

An in-depth study regarding the interaction between educational management strategies, the effectiveness of EdTech technology, and its impact on the equal distribution of learning access has become very urgent to conduct. This research formulates the problem concerning how the utilization of EdTech-based educational platforms is implemented within educational management strategies in remote areas. This research also formulates the problem concerning the impact of EdTech platform utilization on addressing educational disparities and social justice for communities in isolated regions. In line with this, this research aims to analyze the implementation of EdTech platforms in the operational management of schools in remote areas as well as to identify their impact on the comprehensive equalization of educational quality.

B. METHOD

This research uses a descriptive qualitative approach based on literature studies that explore the phenomenon of digital education management in remote areas in depth. This study reviews variations in EdTech platform implementation based on various findings from available literature. The research focus is directed at analyzing school management operational procedures, patterns of e-learning system utilization by teachers and students, and the dynamics of equalizing educational access at the local community level as documented in various literature sources.

Stake (2010) explains that data source triangulation is a vital procedure to guarantee the depth and validity of the qualitative data obtained. In the context of literature studies, data source triangulation is manifested through the tracing and comparison among various types of literature, such as scientific journal articles, research reports, educational policy documents, and official publications from relevant institutions, to design a synthesis that will answer the problems formulated previously. The integration of educational technology in remote areas is not only about providing access but also ensuring that the local community is equipped to utilize these resources effectively.

Qualitative data analysis is carried out interactively and continuously, following the stages of data reduction from all literature materials, data presentation in the form of narrative matrices, and the drawing of conclusions or verification of findings. Data coding is carried out thematically based on the variables of operational management strategy, the effectiveness of EdTech usage, and indicators of educational disparity emerging from the literature. Miles et al. (2014) emphasize that discipline in applying the stages of qualitative data analysis guarantees the scientific credibility and objectivity of the generated conclusions.

C. RESULTS AND DISCUSSION

Utilization of EdTech-Based Educational Platforms in the Educational Management Strategy of Remote Areas

The implementation of EdTech-based educational platforms in schools in remote areas demands a fundamental transformation in the design of educational operational management strategies at the regional level. School managers are required to formulate flexible resource allocation schemes to ensure the continuity of technology access for all students. The adoption of digital systems is not merely transferring printed materials onto computer screens, but rather comprehensively changing the pattern of learning interactions. School leadership plays a crucial role in directing the rhythm of technology adaptation to align with the availability of local infrastructure (Aditya et al., 2025). Careful managerial planning minimizes the impact of technical disturbances such as unstable electricity supply and limited internet signal coverage. The procurement of computers and educational tablets equipped with offline material features becomes the most rational strategic choice for inland regions. Through an adaptive planning strategy, school management succeeds in maintaining the consistency of digital learning implementation despite being in all-around limited conditions. This initial success provides a solid foundation for the sustainable development of a modern learning ecosystem in isolated regions (Schildkamp et al., 2020).

Strengthening teachers' technical and pedagogical capacity is a key pillar in the strategy for managing digitally based schools in remote areas. School management organizes structured training programs to improve teachers' digital literacy on a regular basis. The training focuses

on mastering navigation of e-learning platforms, developing interactive learning modules, and application-based learning assessment techniques (Singh et al., 2025). Teachers with high confidence in operating digital devices are more creative in presenting classroom material. This creativity is closely tied to the courage to innovate, since employees who dare to try new approaches tend to produce more adaptive and productive work outcomes (Darmawan, 2023). Teachers' ability to adapt to new working methods also plays a role in maintaining classroom discipline and student participation during the transition to digital learning (Rozikin et al., 2023). Ongoing mentoring from the principal ensures that every teacher can independently resolve minor technical problems during the teaching and learning process. The formation of digital-based teacher working groups facilitates the exchange of experience and solutions among educators in underdeveloped areas. Learning approaches built on game-based elements can strengthen this collaborative spirit, since they tend to preserve cooperation and empathy among the teachers involved (Putra et al., 2024). This improvement in teaching competence directly affects the quality of material delivery and students' enthusiasm for learning in the classroom. Effective management of human capital is a key determining factor in the success of digital transformation at the school level (Scherer et al., 2019).

Adjustment of school operational curriculum governance is carried out to align EdTech platform content with the characteristics and local needs of remote communities. Education managers integrate national e-learning modules with local wisdom so that learning materials remain relevant to students' surrounding environment (Zakaria et al., 2025). The principal, together with the curriculum development team, maps out the most crucial competency standards to be delivered through digital media. Schedule flexibility is applied to accommodate the limited time of students who often must help with family economic activities. This kind of flexibility is particularly important for groups facing structural barriers to education, such as women in rural areas who often must balance schooling with family economic responsibilities (Ramle & Mardikaningsih, 2024). This adaptive curriculum management approach prevents students from feeling alienated from the modern learning material presented by the application. An approach that combines

multiple disciplines in delivering material also strengthens students' social skills, since a curriculum built around real-life themes tends to encourage more meaningful interaction among students (Hariani et al., 2021). The use of audio-visual learning media that highlights local life themes significantly improves students' cognitive understanding. This shift in learning methods makes the education process feel more meaningful and applicable to students' daily lives. The success of this curriculum harmonization proves that technology adoption can proceed in balance with the preservation of local cultural values (Teräs et al., 2020).

Physical infrastructure and communication networks in isolated regions are managed through a strategic partnership scheme among school management, local government, and telecommunications providers. Schools use operational assistance funds to build independent satellite signal receiving stations to ensure internet connectivity (Norlin & Norlin, 2025). Introducing new technology systems into an established way of working often meets resistance from staff, so managing this transition requires a deliberate change strategy (Mardikaningsih & Wardoyo, 2026). EdTech platform providers are invited to cooperate in providing local servers at the school level so that material downloading does not depend on external networks. Hardware maintenance is carried out routinely by an independent technical team formed by the consortium of remote schools. Managing this kind of partnership effectively requires structured knowledge sharing among the parties involved, since well-organized knowledge management tends to give an organization a stronger competitive position (Darmawan, 2023). Orderly inventory management prevents premature damage to the school's digital learning devices. The provision of solar-based backup electricity is a reliable solution for the frequent power outages in remote areas. This reliability of supporting facilities keeps the periodic synchronization of grade data and learning materials running smoothly. Solid cross-sector coordination strengthens the resilience of digital learning infrastructure in underdeveloped areas (Howard et al., 2021).

The school's internal quality assurance system has undergone a comprehensive renewal through the use of data analytics features available on the EdTech application platform. School management can monitor attendance levels, study duration, and students' academic progress precisely

through a digital dashboard. This learning performance data is used by the principal to evaluate the effectiveness of the teaching methods applied by each teacher. Digital monitoring of this kind also shapes how teachers exercise their professional responsibility, since regular oversight tends to encourage employees to work with greater independence and accountability (Mardikaningsih et al., 2024). A leadership style that is open and consistent tends to reinforce this sense of accountability, since it fosters a more positive work climate and voluntary contribution among staff (Mardikaningsih et al., 2022). Special intervention can be given immediately to students experiencing a decline in learning achievement based on the application's digital records (Azhari et al., 2025). Guidance and counseling support can play an important part in this kind of intervention, given its documented contribution to strengthening student character alongside academic achievement (Rojak et al., 2024). Transparency of grade data also facilitates the preparation of school performance accountability reports for the district education office. This digital data-based supervision instrument increases the efficiency of the education supervision process throughout remote areas. Decision-makers at the school level can formulate more objective and targeted operational policies based on empirical evidence. This digitalization of the evaluation system encourages the creation of a school work culture oriented toward quality achievement (Blikstad-Balas & Klette, 2020).

The reduction of academic information isolation in remote areas is achieved through optimizing the digital library feature integrated within the learning platform. Access to educational resources has long been recognized as one of the main factors behind persistent disparities in education across developing countries (Rojak & Khayru, 2022). Students and teachers in remote areas can now access thousands of textbook titles, scientific journals, and interactive learning modules without being limited by physical logistical constraints. School managers allocate a special budget to subscribe to high-quality educational content licenses tailored to the education level (Ghadage et al., 2025). This broad access to digital learning resources enriches students' knowledge extensively. This ease of access also needs to reach teachers of every generation, since digital adoption efforts that remain inclusive of older staff tend to produce more evenly distributed benefits within the organization (Darmawan, 2023). The availability of varied reading materials triggers growth in

reading interest and a culture of literacy in isolated school environments. Teachers can easily obtain the latest teaching references to update the material presented in class. This ease of access to information cuts the chronic reading literacy gap that has long been a problem in frontier and underdeveloped areas. The availability of digital learning resources is a major driver of education modernization in the far corners of the country (Major et al., 2021).

Active participation of local stakeholders and the wider public is managed through the establishment of a digital communication forum between the school and parents. School management holds regular outreach sessions to give parents an understanding of how to guide their children in learning using tablets. The use of messaging applications and the school portal facilitates direct reporting of children's learning progress to parents (Chibaya, 2025). Parents in remote areas who were previously uninvolved in the education process can now transparently monitor their children's learning activities. Emotional support from the family environment increases student discipline and motivation when operating EdTech applications. Building this kind of engagement calls for deliberate leadership from the principal, since a well-designed leadership strategy is what allows a school to sustain quality improvement over time (Ismaya et al., 2023). The school also involves local traditional leaders to provide moral support for the sustainability of the education digitalization program. Close partnership among the school, family, and society creates a supportive environment conducive to the growth of students' potential. This togetherness becomes a strong social foundation for the success of digital education innovation (Goodall, 2021).

Prevention of eye health problems and student mental fatigue is regulated through the implementation of strict standard operating procedures for screen usage duration. School management designs a learning schedule that balances screen-based face-to-face activities with outdoor physical exploration activities. Teachers are directed to alternate e-learning sessions with dynamic group discussions and educational games based on the surrounding environment (Peltopuro, 2025). This approach maintains students' physical fitness and emotional balance during the daily learning process. This kind of policy reflects the view that mental well-being deserves to be treated as a core organizational concern, requiring the work environment itself to be deliberately

designed to protect it (Issalillah & Khayru, 2025). Supervision of the type of content accessed by students is carried out through the activation of a security filter feature on the school's internet network. A safe and healthy digital learning environment protects students from the negative impact of information technology exposure. This child protection policy ensures that the use of EdTech remains within a corridor of positive self-development. Balancing technological progress with children's psychological health is management's top priority (Stiglic & Viner, 2019). A periodic evaluation of operational costs and budget allocation efficiency shows that the use of the EdTech platform can significantly reduce spending on printing test material documents. Funds successfully saved by school management are redirected to fund hardware maintenance and additional daily internet quota for underprivileged students. Savings on the logistics costs of shipping physical books from big cities make the school's budget allocation far more effective and rational. Schools are able to optimize the allocation of government assistance funds for more productive learning quality development activities. This kind of budget efficiency is easier to achieve when school leadership upholds ethical, transparent principles, since that kind of leadership tends to shape a sustainable and accountable organizational culture (Mardikaningsih et al., 2022). This budget efficiency strengthens the school's financial resilience in facing the dynamics of operational needs in remote areas. This accountable financial management model becomes an example for other schools in the surrounding area. The success of this cost efficiency proves that investment in information technology provides a very high return of educational benefit for remote communities (Haelermans, 2022).

Impact of EdTech Platform Utilization on Addressing Educational Disparities and Social Justice

The utilization of EdTech-based educational platforms in isolated regions has a tangible impact on accelerating the equal distribution of high-quality learning materials. Students in inland regions are now able to study instructional content that is identical to what is received by students in major cities. The accessibility of these digital teaching materials tears down the geographical barriers that for many years have been the main obstacle to national education quality equality. This shift expands the scope of opportunities for children

in left-behind regions to independently enhance their intellectual capacity (Ghadage et al., 2025). The reduction of this knowledge quality gap creates new optimism for improving the quality of human resources in peripheral areas. Equal learning opportunities are a concrete manifestation of the improvement in educational access governance. Revaloid (2021) notes that the democratization of digital learning materials accelerates the formation of an inclusive academic climate in isolated regions

Digital transformation through electronic learning systems also contributes to improving social justice for groups of society that have long been marginalized. Children from underprivileged families in remote regions are gaining their basic right to operate advanced technological devices from an early age. Mastery of digital skills narrows the gap in graduate qualifications when these children compete at higher levels of education (Joel et al., 2025). Equal command of digital competence of this kind also strengthens individual competitiveness amid the increasingly demanding pressures of globalization (Abdullah et al., 2021). The broadest possible opening of access to information gives remote students a sense of confidence and social equality before the national public. Fulfillment of the right to quality education becomes a foundational asset in breaking the cycle of intergenerational poverty in underdeveloped regions. Instilling awareness of the importance of early education also encourages remote communities to shift toward more sustainable behavior (Gautama & Mardikaningsih, 2022).

The gradual penetration of internet-based educational technology has succeeded in eroding the stigma of intellectual backwardness long attached to remote communities. The adoption of digital platforms, balanced with intensive instructional mentoring, has triggered a surge in students' academic achievement scores in mastering basic science and mathematics (Tung, 2025). The quality of this mentoring is closely tied to teachers' psychological readiness to carry out their guiding role consistently (Hariani & Wardoyo, 2024). Reardon et al. (2019) argue that providing interactive learning tools directly contributes to narrowing the achievement gap between regions caused by geographic isolation. Students in remote villages now have the confidence to participate in various national science competitions online, with satisfying results. This success proves that the intellectual potential of children in remote areas is no less

than that of urban students when given equal opportunity and learning facilities. The narrowing of this academic achievement gap becomes an important indicator of the success of regional education management improvement strategies. Recognition of remote students' achievements strengthens the moral drive for the entire school community to keep improving daily learning quality. The arrangement of an inclusive digital instructional system has succeeded in building a solid foundation of social justice through formal education. The success of this arrangement confirms that the speed of technology adoption needs to be balanced with humanistic considerations so its benefits are felt evenly (Darmawan, 2023). The continuity of this learning achievement ensures equal competitiveness for graduates of remote schools in the future.

The increase in learning-time efficiency is the next operational advantage felt directly by students in remote areas. The flexibility of e-learning platforms allows students to replay recorded material they have not yet understood outside formal school hours (Deichakivska et al., 2024). This convenience greatly helps students with limited study time because they must also help with the family economy. Self-directed learning facilitated by technology shapes a lifelong-learner character in students from a young age. This pattern of self-directed learning relates to findings that personality traits also determine a person's consistency and achievement later in life (Darmawan, 2017).

The social impact is most pronounced in the shift in remote parents' perceptions and expectations toward their children's educational future. Parents who directly witness their children becoming skilled at operating digital platforms begin placing high trust in local schools (Xie, 2024). Warschauer et al. (2014) assert that successful technology integration in underdeveloped schools can increase families' social investment commitment toward their children's continued study through higher education. This rise in educational aspiration encourages families to prioritize meeting their children's learning needs over demanding premature work. Consistent parental attention has proven to play an important role in shaping children's character and competence throughout the education process (Firmansyah & Darmawan, 2023). Parents' emotional encouragement becomes a social bulwark that prevents high

dropout rates in remote regions. This shift in local mindset strengthens the bond of collaboration between schools and their communities in sustaining digitalization programs. Parents' active involvement in monitoring their children's online learning progress creates a highly conducive support ecosystem. This kind of involvement illustrates how positive psychological factors can strengthen a person's attachment and commitment to a shared goal (Darmawan & Mardikaningsih, 2022). This sociocultural transition proves that the use of EdTech innovation can touch the structure of collective awareness in isolated regions on a deep level.

The presence of digital platforms also accelerates the process of social and cultural integration between students in remote areas and student communities from various regions of the country. Inter-school collaboration features on EdTech platforms enable the exchange of ideas, group discussions, and cross-regional collaborative learning projects (Kayyali, 2025). Collaboration across such varied backgrounds in fact reflects how diversity can become a resource for boosting group creativity and performance (Darmawan, 2024). This inclusive interaction opens up remote students' sense of national identity and fosters a feeling of unity as equal citizens. This process shows the role social education plays in shaping students' outlook to be more open toward the wider world (Hariani & Mardikaningsih, 2022). The cross-cultural understanding built through virtual spaces strengthens the nation's social resilience amid the diversity of regional backgrounds.

Strengthening transparency in digital school management increases public and donor trust in education assistance programs in remote regions. Learning-achievement data and device-usage data automatically recorded in the e-learning system make it easier to verify the disbursement of School Operational Assistance funds (Mehan et al., 2024). Well-organized data and knowledge management of this kind also contributes to improving the quality of school administrators' work and their sense of responsibility toward their duties (Eddine et al., 2023). Reich and Ito (2020) underline that digital data-based accountability in underdeveloped schools is an important instrument for ensuring the effectiveness of government aid disbursement in achieving equitable social justice. The growing trust of private and government sponsors has led to

sustained allocation of aid funds for improving school facilities. This kind of transparent, accountable management practice reflects the application of social-responsibility principles that have been shown to improve an institution's operational performance (Barzani et al., 2022). Improved public oversight ensures that all education facilities are used optimally for the benefit of students.

The existence of the digital system also protects the right of educational access for children with disabilities in remote areas. This protection of rights is a concrete expression of the legal guarantee of access to education and health that every child should receive without exception (Hariani et al., 2021). EdTech platforms equipped with screen-reader features and visual adjustments make it easier for children with special needs to access learning material independently (Ghadage et al., 2025). This inclusive education raises the dignity of children with disabilities who were previously often overlooked within conventional school systems. This disability-friendly educational care strengthens the realization of humanistic values and social justice at the local level.

The use of EdTech platforms also drives the equal distribution of quality financial-literacy and digital-entrepreneurship training material for teenagers in remote regions. This provision of practical skills prepares graduates of remote schools to create independent business opportunities based on their region's local potential (Dumbuya, 2025). Readiness to face changes in the shape of work brought about by automation is becoming an important asset for young people in today's digital era (Darmawan, 2025). Becker et al. (2018) demonstrate that providing a digital-entrepreneurship curriculum in remote schools effectively strengthens youth economic resilience and reduces the migration rate of unskilled labor to large cities. Adequate mastery of work skills also plays a role in determining the quality of a person's performance and loyalty to their chosen profession (Darmawan et al., 2020). This digital vocational skill offers a sustainable livelihood alternative for village youth after completing secondary education. This opportunity to develop the local economy strengthens the independence of isolated regions from dependence on urban growth centers.

The consistent provision of digital learning services ultimately manages to curb the transmission of inter-regional inequality at the

national level. Local governments gain a tested reference framework for designing education budget allocation policies that favor underdeveloped regions (Wang, 2025). A flexible policy that adapts easily to regional conditions has been shown to help an organization respond to environmental change more quickly and appropriately (Darmawan & Mardikaningsih, 2023). The success of digital innovation in isolated regions provides empirical proof that geographic physical boundaries can be overcome through the right technology management strategy. This improvement in education quality becomes a main pillar of just national development.

The integration of EdTech-based learning technology ultimately proves that improving school management efficiency and realizing social justice can proceed side by side. Selman et al. (2020) conclude that investment in education technology in isolated regions yields very large social returns in the form of strengthened equality of citizens' rights to a decent life. The success of improving education services in remote areas becomes the main foundation for a harmonious and sustainable national integration. This digital transformation ensures that not a single child of the nation is left behind in pursuing their future aspirations. The continuity of this commitment is the key to achieving evenly distributed social justice throughout the country.

D. CONCLUSIONS

The utilization of Educational Technology (EdTech)-based educational platforms in schools in remote areas serves as a strategic instrument in rationalizing educational operational management while cutting down the gap in learning quality. The adoption of digital systems balanced with adaptive managerial planning, the strengthening of educators' technical capacity, and the flexibility of the local curriculum successfully maintain the sustainability of the teaching-learning process amid physical and geographical limitations. This integration of digital technology is capable of shifting conventional school governance approaches to become more structured, transparent, and based on daily data analytics evidence.

The implications of this digital transformation deeply touch the dimension of social justice for communities in isolated regions. The organization of an inclusive electronic learning system provides equal learning rights and

opportunities for children in inland areas to master academic materials and high-value digital skills. The successful erosion of gaps in learning achievement attainment and the increase in public trust toward schools strengthen the social bonds between educational institutions, families, and local communities in safeguarding the future sustainability of children in left-behind regions. To maintain the sustainability of the positive impacts of this educational innovation, school managers and regional education offices are advised to reinforce independent infrastructure maintenance schemes based on renewable energy and to maintain an offline-first-based learning model. The central government needs to expand the reach of communication networks and digital device incentives to ensure the availability of equitable access for inland regions. Local communities and parents are expected to continuously enhance digital mentoring within the home environment to create a harmonious supporting ecosystem for the growth and development of the younger generation's potential in remote parts of the country.

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