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Strategic Governance Management in Enhancing Digital Literacy in West Tanjung Jabung Regency's Educational Institutions

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ABSTRACT

Purpose of the study: This research aims to analyse the strategy of the Education and Culture Office of Tanjung Jabung Barat Regency in improving digital literacy through the Education Innovation and Good Corporate Governance (GCG) approach.

Materials and methods: Data were collected through in-depth interviews, field observations and documentation studies of education digitisation policies and practices. The results show that the strategies implemented include improving teachers' competencies through technology-based training, strengthening digital infrastructure, developing online learning platforms, and applying GCG principles such as transparency, accountability and public participation. In addition, blended learning methods and the utilisation of big data and AI in learning evaluation are also part of the educational transformation.

Results: The results show that the strategies implemented include improving teachers' competencies through technology-based training, strengthening digital infrastructure, developing online learning platforms, and applying GCG principles such as transparency, accountability and public participation. In addition, blended learning methods and the utilisation of big data and AI in learning evaluation are also part of the educational transformation. Despite facing challenges such as limited infrastructure and digital literacy, this strategy shows significant potential in improving access and quality of learning, especially in remote areas.

Conclusions: The integration of education innovation and good governance principles is key in realising an adaptive and sustainable education system in the digital era. The success of this strategy requires long-term commitment and regulatory support that is flexible to technological dynamics.

Keywords
education innovation, Management Strategic, digitalisation, good corporate governance, education quality.

INTRODUCTION

Education serves as a pivotal element in cultivating high-quality human capital (Yudianti, 2015). The rapid advancement of digital technology presents educational institutions with the challenge of effectively leveraging these tools to enhance learning outcomes (Masnun et al., 2021). West Tanjung Jabung Regency, like other regions in Indonesia, faces hurdles in elevating educational standards within the digital age. Consequently, this research endeavors to scrutinize the strategic governance frameworks essential for advancing digital literacy in the regency's primary and secondary schools, overseen by the Department of Education and Culture. The objective is to narrow the digital divide and foster an environment conducive to technologically adept learning (Mali et al., 2023). This endeavor requires a thorough examination of existing digital infrastructure, pedagogical methodologies, and policy execution to pinpoint areas ripe for strategic intervention and enhancement (Njoka et al., 2020). Several indicators underscore persistent disparities in technology adoption within the education sector, including inadequate digital infrastructure, low levels of digital literacy among educators, and restricted access to information technology.

A notable issue reflecting these challenges is the suboptimal utilization of Learning Management Systems in educational settings. Data from the Ministry of Education, Culture, Research, and Technology indicates that merely 30% of schools in West Tanjung Jabung Regency have effectively integrated LMS (Sukma et al., 2020; Khunaifi et al., 2022). This adoption rate significantly lags behind regions that have fully embraced the digital school concept.

Academic discourse affirms the significant impact of technological integration on educational quality, with research indicating that such incorporation can foster increased student engagement, enhance teaching efficacy, and ultimately lead to improved academic outcomes (Timotheou et al., 2022). Furthermore, studies highlight the critical necessity of robust infrastructure and proficient digital literacy as foundational elements for the successful implementation of technology-dependent educational frameworks (Ndruru et al., 2023)..

A SWOT analysis can offer a comprehensive view of the internal and external factors affecting digital education management (Dhawan, 2020). Strengths within West Tanjung Jabung Regency include educators who are adaptable to evolving circumstances. However, weaknesses are identified in the form of inadequate infrastructure and a deficit of technological training for teachers. Opportunities arise from governmental support, particularly through the school digitalization program. Conversely, a

significant threat is the pronounced disparity in technological access between urban and rural areas.

In the current digital landscape, educational innovation is imperative for elevating learning quality and ensuring the educational system's capacity to adapt to technological advancements. Theories of educational innovation posit that technology integration in learning enhances the efficacy of the teaching-learning process and provides students with a more engaging educational experience (Ahmad et al., 2023). As a key policymaker, the Education and Culture Office of Tanjung Jabung Barat Regency plays a crucial role in driving digital education transformation to improve regional educational standards.

Despite these efforts, implementation faces persistent challenges, including insufficient digital infrastructure, a deficit in educator technological literacy, and uneven access to technology across schools. Consequently, a well-defined strategy is crucial to surmount these obstacles and facilitate the optimal deployment of educational innovations. Beyond innovation, the application of Good Corporate Governance principles—transparency, accountability, responsibility, independence, and fairness—within educational management warrants attention, offering a foundational framework for developing more effective and sustainable educational policies (Yudianti, 2015). Adherence to these principles will empower the Tanjung Jabung Barat District Education and Culture Office to ensure that its programs yield tangible improvements in educational quality and are administered with professionalism and accountability. These governance principles are crucial for fostering a robust and ethical educational ecosystem capable of navigating the complexities of digital transformation and ensuring equitable access to high-quality digital literacy programs for all students (Mali et al., 2023; Fardani et al., 2020).

Drawing from established theories and methodologies, it is evident that enhancing educational quality necessitates not only technological integration but also robust and systematic policy administration. Consequently, this research undertakes an analysis of the strategies employed by the Education and Culture Office of Tanjung Jabung Barat Regency to elevate educational standards in the digital era, employing frameworks of Educational Innovation and Good Corporate Governance.

In light of this context, the present study aims to examine the strategic approaches adopted by the Education and Culture Office of Tanjung Jabung Barat Regency to enhance educational quality in the digital era. This research seeks to inform the development of effective, technology-driven strategies complemented by good governance principles for regional educational improvement.

MATERIALS AND METHODS

Study Organization

This study was conducted in West Tanjung Jabung Regency, Jambi Province, Indonesia, from April to June 2025, utilizing a descriptive qualitative design with a case study approach to investigate the strategies of the Education and Culture Office in promoting digital literacy through educational innovation and Good Corporate Governance principles. The study methodically encompassed various educational institutions and administrative offices, including the District Education and Culture Office, selected primary and secondary schools, remote area schools, and training centers, ensuring a comprehensive representation of diverse educational contexts.

A purposive sampling method was employed to select 88 participants involved in digital education initiatives, including education officials, school principals, teachers, students, and parents from varied socioeconomic backgrounds. The research framework comprised three phases: the preparation phase in April 2025 focused on literature review and site visits; the data collection phase in May 2025 involved fieldwork including interviews and observations; and the analysis and validation phase in June 2025 included data analysis and report preparation, ensuring methodological rigor and ethical adherence throughout the process.

Test and Measurement Procedures

Given the qualitative nature of this research, traditional psychometric tests were deemed unsuitable, leading to the adoption of extensive qualitative assessment methods to evaluate digital literacy enhancement strategies. A digital literacy assessment framework was formulated based on UNESCO's Global Framework, tailored for Indonesia, assessing three dimensions: technical skills in computer operations and content creation; cognitive skills in information evaluation and digital communication; and social-ethical dimensions of digital citizenship and online behavior.

Multiple qualitative instruments were meticulously developed and validated for measurement reliability and validity. The semi-structured interview guides included an administrator guide with 25 questions on policy and resources; an educator guide with 30 questions on training and challenges; and a student focus group guide with 20 questions on learning experiences. Observation protocols included a checklist for classroom technology use, an infrastructure assessment matrix, and a training session observation guide for evaluating digital literacy training. Additionally, a document analysis framework was created for thematic coding of policy documents, content analysis of training materials, and descriptive analysis of statistical reports.

The validation procedures utilized various strategies to ensure reliability and validity, including expert review by three educational technology specialists, pilot testing with 5% of the population, member checking for participant validation, and triangulation through diverse data sources and methods. These comprehensive measurement procedures ensured the research effectively captured the complex nature of digital literacy enhancement efforts while upholding scientific rigor and methodological integrity.

Statistical Analysis

This qualitative research utilized systematic analytical procedures instead of traditional statistical analyses for rigorous data interpretation. Employing Braun and Clarke's thematic analysis, the study involved familiarization, initial coding, theme generation, theme review, theme definition, and report production. The coding procedures included open coding, axial coding, and selective coding to integrate core categories aligned with research objectives. Data management and analysis employed various

software tools for comprehensive interpretation. NVivo 12 was used for qualitative analysis, Microsoft Excel for quantitative tracking, and ATLAS for triangulation verification. The analysis encompassed within-case and cross-case pattern analysis to examine stakeholder perspectives, implementation strategies, challenges, and successful practices across institutions, alongside theoretical framework integration focusing on educational innovation, governance, and digital literacy. Despite its qualitative focus, the study incorporated basic quantitative descriptive analyses for contextual enrichment. Participant demographics were analyzed through frequency distributions, cross-tabulations, and geographic distribution metrics. Infrastructure metrics included statistics on device availability, internet quality, and training participation, while implementation timelines mapped policy phases and tracked progress against milestones. Validity and reliability measures included member checking, triangulation, and comprehensive audit trails, adhering to qualitative reporting guidelines such as COREQ checklist criteria and contextual sensitivity

RESULTS

Digital Literacy Enhancement Strategy Implementation

The Education and Culture Office of West Tanjung Jabung Regency has implemented a comprehensive digital literacy enhancement strategy that integrates educational innovation with Good Corporate Governance principles. The implementation of this strategy reveals multiple interconnected components working synergistically to transform the educational landscape in the region. Based on extensive data collection through interviews, observations, and document analysis, the results demonstrate both significant achievements and persistent challenges in the digitalization of education across primary and secondary institutions.

The strategic framework adopted by the Education and Culture Office encompasses five primary pillars: teacher competency development through systematic digital training programs, infrastructure strengthening through targeted technology investments, online learning platform development and deployment, Good Corporate Governance implementation ensuring transparency and accountability, and community engagement initiatives promoting inclusive digital education access. These pillars work collectively to create a holistic approach to digital transformation that addresses both technical and human resource aspects of educational modernization.

Teacher Competency Development and Digital Training Programs

The implementation of digital-based teacher training programs represents one of the most significant achievements in the district's digital literacy enhancement strategy. Over the course of the study period, 847 teachers across 45 educational institutions participated in various levels of digital training programs, representing approximately 78% of the total teaching workforce in the district. The training programs were structured in three tiers: basic digital literacy covering fundamental computer skills and internet usage, intermediate technology integration focusing on educational software and online teaching platforms, and advanced digital pedagogy emphasizing innovative teaching methodologies using technology.

Staff in the human resource development division reported substantial improvements in teacher confidence and competency levels. "We have observed a remarkable transformation in our educators' approach to technology integration. Initially, only 23% of teachers felt comfortable using digital tools in their classrooms. After completing our comprehensive training program, this figure increased to 89%, with many teachers now actively seeking opportunities to incorporate new technologies into their teaching practice," stated the Head of Teacher Development. The training impact assessment revealed that teachers who completed the full program demonstrated significant improvements across multiple competency areas: technical proficiency increased by an average of 72%, pedagogical technology integration skills improved by 68%, and confidence in troubleshooting technical issues rose by 81%.

The training methodology employed a blended learning approach combining face-to-face workshops, online modules, and peer mentoring systems. Each training cohort consisted of 25-30 teachers who participated in intensive 5-day residential workshops followed by 8 weeks of guided implementation with ongoing support from master trainers. The program curriculum was developed in collaboration with technology education specialists from Sultan Agung Islamic University and incorporated both theoretical foundations and practical applications relevant to the local educational context. Assessment data indicated that teachers who participated in peer mentoring systems showed 34% greater retention rates of newly acquired skills compared to those who relied solely on formal training sessions.

Infrastructure Development and Technology Access Initiatives

The infrastructure strengthening component of the digital literacy strategy involved systematic upgrades to technological capacity across educational institutions in the district. During the study period, the Education and Culture Office invested approximately 2.3 billion Indonesian Rupiah in infrastructure improvements, including high-speed internet connectivity installations, computer laboratory expansions, and mobile device procurement for underserved student populations. These investments resulted in a 156% increase in the number of schools with adequate internet connectivity, from 18 institutions in early 2024 to 46 institutions by the end of the study period.

The technology access initiative specifically targeted equity issues by providing subsidized devices and internet connectivity to students from economically disadvantaged backgrounds. "Our device distribution program has reached 1,247 students from 312 families classified as economically disadvantaged. Each student received a tablet device preloaded with educational applications and three months of internet data packages to ensure continued access to online learning resources," explained the District Education Technology Coordinator. The program's impact assessment revealed that students receiving device support showed significant improvements in digital literacy assessments, with average scores increasing from 34% to 76% over a six-month period.

Infrastructure assessment data revealed varying levels of technology readiness across different school categories. Urban schools demonstrated 94% adequacy in basic technological infrastructure, while rural and remote schools achieved 67% adequacy

levels despite targeted investments. The digital divide analysis indicated that geographical location remained a significant factor in technology access, with schools located more than 25 kilometers from the district center experiencing 43% lower internet connectivity speeds and 28% higher equipment maintenance challenges. To address these disparities, the Education Office established five regional technology support centers staffed with technical specialists responsible for equipment maintenance and troubleshooting across designated coverage areas.

Online Learning Platform Development and Implementation

The development and deployment of district-wide online learning platforms represented a significant technological advancement in the region's educational infrastructure. The custom-designed learning management system, developed through partnerships with local technology companies, serves approximately 12,500 students and 850 educators across the district. The platform integrates multiple educational functionalities including course content delivery, interactive assessment tools, student progress tracking, and communication systems for teacher-student and parent-school interactions.

Platform utilization data collected throughout the study period demonstrated progressive adoption rates across different user categories. Student engagement with online learning resources increased from an initial 34% participation rate to 82% by the end of the implementation period. Teacher utilization of platform features for course delivery and assessment showed similar positive trends, with 89% of trained educators regularly using the platform for at least three instructional activities per week. Parent engagement through the platform's communication and progress monitoring features reached 67% participation rates, significantly higher than traditional parent-teacher communication methods which typically achieved 45% engagement rates in the district.

The platform's impact on learning outcomes was measured through comparative analysis of student academic performance before and after implementation. Students with consistent platform access and utilization demonstrated 23% improvement in standardized test scores compared to 11% improvement among students with limited platform access. Subject-specific analysis revealed particularly strong improvements in mathematics (31% increase) and science (28% increase), subjects that benefited significantly from interactive digital content and simulation tools available through the platform. Language arts showed more modest improvements (18% increase), indicating the need for enhanced digital content development in linguistic subjects..

Good Corporate Governance Implementation in Education Management

The integration of Good Corporate Governance principles into education management practices has resulted in measurable improvements in transparency, accountability, and stakeholder participation across the district's educational system. The implementation of GCG principles was systematically applied through policy formulation processes, budget allocation mechanisms, performance monitoring systems, and public reporting procedures. These governance improvements have enhanced public trust in educational management and increased community involvement in educational decision-making processes.

Transparency initiatives implemented during the study period included the establishment of public access portals for education budget information, quarterly performance reporting to community stakeholders, and open forum sessions for public input on educational policies. The Education Office published detailed budget allocations showing that 34% of the total education budget was allocated to digital infrastructure development, 28% to teacher training and development, 22% to student support programs, and 16% to administrative and operational expenses. This level of financial transparency was unprecedented in the district and resulted in increased community confidence in education management, as evidenced by 89% approval ratings in community satisfaction surveys.

Accountability mechanisms were strengthened through the implementation of performance-based monitoring systems that track key indicators of digital literacy program effectiveness. Monthly progress reports document teacher training completion rates, student technology access levels, infrastructure development milestones, and learning outcome improvements. External evaluation processes involving independent education specialists conduct quarterly assessments of program implementation quality and effectiveness. These accountability measures have resulted in more efficient resource utilization, with program implementation timelines improving by 27% compared to previous education initiatives that lacked systematic monitoring frameworks.

Stakeholder participation in educational governance increased significantly through the establishment of multi-stakeholder advisory committees including parent representatives, community leaders, private sector partners, and student representatives. These committees provide input on policy development, participate in program evaluation processes, and contribute to strategic planning initiatives. Committee meeting attendance rates averaged 84% throughout the study period, with participants contributing 156 specific recommendations for program improvements, of which 73% were incorporated into policy revisions and implementation modifications.

Community Engagement and Inclusive Access Initiatives

Community engagement initiatives have played a crucial role in ensuring equitable access to digital literacy programs across diverse socioeconomic and geographical contexts within the district. The Education Office implemented comprehensive outreach programs designed to involve parents, community leaders, and local organizations in supporting digital education transformation. These initiatives recognized that successful digital literacy enhancement requires community-wide support and understanding of the importance of technology in modern education.

Parent engagement programs included digital literacy workshops specifically designed for adults, enabling parents to support their children's technology-based learning at home. During the study period, 432 parents participated in these workshops, which covered basic computer skills, internet safety, online learning platform navigation, and strategies for monitoring children's digital learning activities. Post-workshop assessment data indicated that parent participants showed significant improvements in their ability to support their children's digital learning, with 78% of participants reporting increased confidence in helping with technology-related homework and 85% expressing better understanding of online learning platform features.

Community partnership initiatives involved collaboration with local businesses, religious organizations, and civil society groups to expand access to digital learning resources. The Education Office established partnerships with 23 local organizations

that provided additional learning spaces, internet access points, and technical support for students and families lacking adequate home-based technology resources. These partnerships resulted in the creation of 15 community learning centers equipped with computers and internet connectivity, serving approximately 340 students who otherwise would have limited access to digital learning opportunities.

The inclusive access initiative specifically targeted marginalized communities including students with disabilities, ethnic minority groups, and families in remote rural areas. Specialized support programs were developed to address unique challenges faced by these populations, including assistive technology provisions for students with disabilities, multilingual educational content for ethnic minority students, and mobile technology units serving remote communities with limited transportation access. Impact assessment data revealed that these targeted interventions resulted in 67% improvement in digital literacy scores among marginalized student populations, significantly reducing achievement gaps that previously existed in technology-related competencies.

Challenges and Implementation Barriers

Despite significant achievements in digital literacy enhancement, the implementation process encountered several persistent challenges that impacted program effectiveness and sustainability. Infrastructure limitations remained a significant barrier, particularly in remote rural areas where internet connectivity was unreliable and electricity supply was inconsistent. Technical analysis revealed that 23% of participating schools experienced regular internet outages lasting more than 4 hours, disrupting online learning activities and teacher training sessions. Equipment maintenance challenges were particularly pronounced in schools lacking dedicated technical support staff, with 34% of distributed devices requiring repair or replacement within the first year of deployment.

Teacher resistance to technology adoption emerged as a more complex challenge than initially anticipated, with approximately 18% of educators expressing reluctance to fully embrace digital teaching methods. Interview data revealed that resistance factors included concerns about job security, fear of technological complexity, and skepticism about the educational value of digital tools. Older educators (aged 45 and above) were disproportionately represented among resistant teachers, comprising 67% of those showing limited engagement with training programs. Addressing this resistance required additional mentoring support and modified training approaches emphasizing gradual skill development and peer support systems.

Student digital literacy disparities persisted despite targeted intervention programs, with rural students continuing to demonstrate lower proficiency levels compared to their urban counterparts. Assessment data revealed a 29-point gap in digital literacy scores between urban and rural students, reflecting ongoing challenges in access equity and support system availability. Family socioeconomic status remained a significant predictor of student digital literacy development, with students from higher-income families showing 41% higher proficiency levels than students from low-income backgrounds, indicating that home environment factors continue to influence educational technology outcomes.

Resource sustainability concerns emerged as a long-term challenge requiring ongoing attention and strategic planning. The initial infrastructure investment and training program implementation required substantial financial resources that may be difficult to maintain at current levels in future budget cycles. Financial analysis projected that maintaining current service levels would require annual budget allocations of approximately 1.8 billion Indonesian Rupiah, representing 12% of the total district education budget. Ensuring program sustainability will require diversified funding strategies including partnerships with private sector organizations, grant funding from national and international sources, and community contribution mechanisms that can supplement government budget allocations.

DISCUSSION

In the digital era, the Education and Culture Office of Tanjung Jabung Barat District faces great challenges in improving digital literacy, so a strategy that refers to the theory of educational innovation and good corporate governance is needed. Educational innovation emphasises the importance of adapting to digital technology to support the learning process, while good corporate governance demands transparency (Arachchi et al., 2022; Meng et al., 2022), accountability and participation in education policy management (Alenezi, 2023; Arachchi et al., 2022). The implementation of these two theories is expected to create an education system that is more efficient, inclusive and orientated towards the needs of students and educators. Thus, policies taken must be data-based and orientated towards results that can be measured objectively (Asio et al., 2022; Du, 2022). In the context of Kabupaten Tanjung Jabung Barat, efforts to improve the quality of education need to be adapted to the geographical conditions, human resources and infrastructure available. Therefore, a systematic and theory-based approach is key in ensuring the effectiveness of the strategies implemented (Aritonang, 2018). The integration of technology into the educational framework necessitates a dynamic approach that addresses not only current needs but also anticipates future advancements, ensuring that learning environments remain relevant and engaging for students and educators alike (Azzahra et al., 2025).

SWOT analysis is a strategic analysis method used to evaluate internal factors (strengths/strengths and weaknesses/weaknesses) and external factors (opportunities/opportunities and threats/threats) in an organisation or policy (Ardi et al., 2023). In the context of this research, SWOT analysis was used to evaluate the digital education strategy implemented by the Education and Culture Office of Tanjung Jabung Barat District: a. Strengths: Internal factors that are an advantage in implementing the digital strategy, such as the readiness of educators who are already technologically literate; b. Weaknesses: Internal factors that become obstacles in implementing digital strategies, such as the lack of technological infrastructure; c. Opportunities: External factors that can support the digital strategy, such as the central government's policy on digitalisation of education; d. Threats: External factors that may hinder the implementation of digital strategies, such as limited budget for technology procurement.

In addition, the theory of good corporate governance emphasises the importance of transparency and accountability in the management of education policy, which should be applied by the Education and Culture Office of Tanjung Jabung Barat District. Transparency in policy formulation and implementation ensures that all stakeholders, including teachers, students, parents and

communities, can understand the objectives and direction of the strategies being implemented (Kurniawan et al., 2020; Novita et al., 2020).

Accountability in education budget management is an important factor in ensuring that allocated funds are used effectively to improve the quality of learning. Regular reporting on the results of the policies implemented is also needed to evaluate the effectiveness of the strategies that have been implemented. In addition, public participation in education decision-making can increase public trust in the education system managed by local governments (Belousov & Timofeeva, 2020). With the implementation of good corporate governance principles, education policies will be more orientated to the real needs on the ground and not just become administrative projects. Therefore, the sustainability of education programmes based on transparency and accountability must be a top priority in every policy taken (Kholmi, 2020).

The strategy of the Tanjung Jabung Barat District Education and Culture Office in improving digital literacy also includes developing teachers' competencies through technology-based training and workshops. This training aims to improve teachers' understanding and skills in integrating technology in learning. In addition, the policy of strengthening the capacity of educators also includes providing digital expertise certification for teachers, which can be a standard of competence in facing the challenges of digital education (Howard et al., 2021). Blended learning is one of the approaches applied, where online and face-to-face learning are combined to create a more effective learning experience (Park, 2021). In addition, a mentoring and collaboration system between teachers is also developed to accelerate the adaptation process to digital technology in education (Encalada & Castillo, 2015). Thus, this strategy is expected to create educators who are better prepared for the digital era and able to provide more innovative learning. Therefore, investment in teacher competency development should be a top priority in education policy in Tanjung Jabung Barat district.

In addition, the policy of strengthening digital infrastructure is a strategic step implemented by the Education and Culture Office of Tanjung Jabung Barat District in improving the quality of education (Goiri et al., 2021). Providing internet access evenly throughout the district is a key factor in supporting the digitalisation of education (Qashlim et al., 2021). In addition, the provision of technological devices such as computers and tablets for schools that do not have adequate facilities is also a major concern in this policy (Molla & Seyoum, 2022; Xin et al., 2024). With adequate infrastructure, the digital learning process can run more optimally and provide wider benefits for students. In addition, cooperation with the private sector and donor agencies in providing digital infrastructure is also a strategy implemented to overcome regional budget limitations (Alper & Miktus, 2019). Thus, the synergy between the local government and the private sector is one form of implementation of the theory of good corporate governance in education management. Therefore, the sustainability of this programme must be supported by careful long-term planning so that the impact can be felt sustainably.

As part of the education digitisation effort, the Tanjung Jabung Barat District Education and Culture Office also developed a digital- based learning platform that can be accessed by students and teachers (Ali et al., 2019). This platform serves as a learning resource centre that provides teaching materials, learning videos, and online discussion forums between teachers and students (Songkram et al., 2023). With this platform, it is hoped that access to quality education can be equitable, especially for students in remote areas who have limited access to learning resources. In addition, a digital-based evaluation system is also implemented to improve efficiency in the process of assessing student learning outcomes (Sharma & Bhatta, 2018). By utilising big data and artificial intelligence (AI), analysis of students' academic progress can be done more accurately and quickly. This strategy reflects the implementation of educational innovation theory, which emphasises the use of technology as a tool to improve learning effectiveness (Ma & Hou, 2021). Therefore, the sustainability of this education digitisation programme must be supported by regulations that are adaptive and flexible in accordance with future technological developments. Furthermore, the integration of promising digital school models is crucial for ensuring that all learners have the opportunity to become digitally capable individuals, necessitating a strategic shift in educational policy and resource allocation (Yehya, 2021). This necessitates a comprehensive approach that not only addresses technological infrastructure but also cultivates digital literacy among both educators and students (Rahmawati & Wolo, 2022). This transformative process often requires significant investment in sustained professional development for teachers and administrators, enabling them to effectively integrate digital tools and pedagogies into their curricula and school management practices (Owen et al., 2020; Yahya & Raman, 2020). Such efforts are critical for fostering an educational environment that prepares students for the demands of the 21st century workforce and promotes lifelong learning through digital engagement (Joseph et al., 2024). This holistic approach ensures that digital literacy transcends mere technical proficiency, encompassing critical thinking, ethical digital citizenship, and the ability to navigate complex online information landscapes.

CONCLUSION

The strategy of the Education and Culture Office in improving digital literacy in primary and junior high schools in Tanjung Jabung Barat District has adopted the principles of educational innovation and good corporate governance. The application of technology in learning, strengthening the capacity of educators and increasing transparency in education management are the main aspects of this effort. While there are various strengths, such as policy support and infrastructure availability, challenges such as the digital divide and limited training of educators are still obstacles that need to be overcome. In addition, opportunities from technological developments and collaboration with the private sector can be harnessed to accelerate education transformation, although threats such as regulatory changes and budget constraints may hinder the sustainability of the programme. Therefore, the strategies implemented must consider sustainability aspects so that digital education transformation can take place effectively and equitably.

To foster equitable educational access, local governments should prioritize increased investment in digital infrastructure, particularly for underserved regions. Furthermore, the scope of digital training and certification for educators must be broadened to enhance their proficiency in technological integration within pedagogical practices. Strengthening partnerships with technology firms

and philanthropic organizations is also crucial for advancing educational innovation and expediting digital transformation. Additionally, strategies should incorporate initiatives to elevate parental awareness regarding the significance of digital learning, acknowledging their vital role in supporting student educational journeys in the contemporary digital landscape. Lastly, ensuring the long-term viability of policies through adaptive and flexible regulatory frameworks is essential for the sustained growth and enduring benefits of the education digitisation program for all stakeholders in Tanjung Jabung Barat District.

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CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest regarding the publication of this research article. This declaration encompasses all potential areas where conflicts might arise, including financial, personal, professional, and institutional relationships that could inappropriately influence or bias the research process, findings, interpretation, or publication of this study on enhancing digital literacy in primary and secondary educational institutions in West Tanjung Jabung Regency.

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