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SWOT-ANP Integration to Improve the Competitiveness of MTs Dayah Graduates through Learning Technology Innovation

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ABSTRACT

Dayah plays a crucial role in shaping both religious and social values. This study aims to analyze strategies for improving the competitiveness of MTs Dayah Samudera Pasai Madani graduates in gaining admission to toptier high schools in Banda Aceh and Aceh Besar. The analysis combines SWOT (Strengths, Weaknesses, Opportunities, Threats) and ANP (Analytic Network Process) methods. The SWOT analysis identifies internal and external factors affecting institutional performance, while ANP prioritizes technologies such as e-learning, artificial intelligence, and learning applications. Findings suggest a growth-oriented strategy using religiously integrated e-learning platforms, curriculum collaboration with preferred high schools, and teacher training in digital tools. Learning applications emerged as the most effective technological support for curriculum alignment, ease of use, cost-efficiency, and impact on learning outcomes. These strategies aim to bridge the technological gap while preserving the religious foundation, ultimately enhancing student preparedness for future educational challenges.

Keywords: Keywords: MTS Dayah Samudra Pasai, Strategic Management, SWOT and ANP, E-learning and **Graduate Competitiveness**

INTRODUCTION

The rapid advancement of education in the era of Society 5.0 presents immense opportunities—particularly through the integration of emerging technologies to enrich the learning experience (Sakiinah et al., 2022). Yet, this momentum must be carefully aligned with an educational philosophy that prioritizes character, ethics, and cultural sensitivity. Technology in education should not be limited to enhancing digital skills alone; it must also cultivate critical thinking and moral awareness, ensuring students become both digitally literate and ethically grounded (Sholeh, 2023; Sugiarto & Farid, 2023).

Within this context, Dayah—as a traditional Islamic boarding school system in Aceh—holds a distinctive position. Historically tasked with transmitting religious knowledge and instilling strong moral character, Dayah institutions embody an educational paradigm deeply rooted in local culture and Islamic values (Saiful, 2018). This makes Dayah not only a preserver of heritage but also a potential platform for innovative yet value-conscious education. However, despite this potential, many Dayah students struggle to adapt to the increasingly technology-driven world beyond their learning environment. Limited access to digital tools often due to institutional restrictions such as mobile phone bans—has led to concerns from parents and stakeholders about the future competitiveness of Davah graduates in modern academic settings.

Dayah Samudera Pasai Madani illustrates this tension clearly. It integrates formal education following the Ministry of Religious Affairs curriculum in the morning and traditional Islamic studies (kitab kuning) in the evening. In contrast, public schools operating under the Merdeka Curriculum emphasize flexibility, selfdirected learning, and 21st-century competencies through the Pancasila Student Profile Project (P5). This disparity widens the gap in academic preparedness and digital exposure between Dayah and non-Dayah institutions.



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Table 1. Research Phenomena

Information	Amount	Percentage
Students are accepted into superior SMA, SMK, and MA in Banda Aceh and Aceh Besar	28	40.58%
Minimum target absorption capacity (ideal)	_	70%
Gap	_	34.42%

Source: Mts Samudera Pasai, 2025

Consequently, data from 2024 show that only 28 students (40.58%) from Dayah Samudera Pasai Madani were admitted to top SMA/MA in Banda Aceh and Aceh Besar—far below the target of 70%. This 34.42% gap signals a critical challenge in aligning the school's educational output with the demands of modern secondary institutions.

Despite having access to infrastructure such as multimedia rooms and computer labs, the school has not yet fully optimized these assets to support student readiness. Beyond physical facilities, emotional and social aspects must also be considered, as many students live away from their families. These factors can influence their adaptability and openness to change—especially technological change.

What further complicates this situation is the lack of research addressing technology integration in Islamic boarding schools. Most existing studies focus on public or general madrasah contexts, offering little insight into how technology can be introduced in a manner consistent with Dayah traditions and values. This study responds to that gap by proposing a strategic framework based on SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis and the Analytic Network Process (ANP). While SWOT maps institutional conditions, ANP is employed to prioritize suitable learning technologies—including e-learning, AI, and interactive applications—that respect the religious and cultural framework of the school.

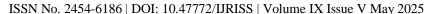
This study contributes to the literature in two important ways. First, it explores the readiness of Islamic boarding schools to adopt technology within a value-based framework. Second, it introduces a novel integration of SWOT and ANP in the Dayah context, offering a practical model for strategy formulation in similar educational environments.

LITERATURE REVIEW

General Overview of Dayah

Dayah represents a unique model of Islamic education rooted in the cultural and religious heritage of Aceh. The term derives from the Arabic word Zawiyah, meaning "corner," historically referring to the location in the Prophet Muhammad's mosque in Medina where religious instruction took place. Traditionally, Dayah institutions focus on religious learning, particularly through the study of the Qur'an and classical Islamic texts, often referred to as the yellow books.

Over time, the role of Dayah has evolved. Many have begun integrating general subjects such as mathematics, science, technology, and foreign languages into their curriculum. This evolution has given rise to two main types: the traditional Dayah, which remains centered on classical Islamic studies, and the modern Dayah, which combines religious teachings with formal, general education. The latter aims to develop students who are not only spiritually grounded but also academically competent and technologically literate—responding to the growing demands of contemporary society.





SWOT Analysis

SWOT analysis is a strategic tool used to assess four key dimensions of an organization's environment: strengths, weaknesses, opportunities, and threats. It helps decision-makers understand internal advantages and challenges, as well as external trends and risks that could impact organizational goals (Budiharjo, 2019). Through this analysis, institutions can align their strategies by capitalizing on strengths and opportunities while mitigating weaknesses and potential threats.

Each component of SWOT is defined as follows:

Strengths: Internal advantages—such as skilled personnel, strong values, or superior infrastructure—that contribute to competitive positioning.

Weaknesses: Internal limitations that hinder performance or progress, including outdated systems or resource constraints.

Opportunities: Favorable external conditions that can be leveraged for growth, such as technological advances or policy support.

Threats: External challenges that could disrupt performance or objectives, including regulatory shifts or increased competition.

These components can be synthesized into four strategic responses:

SO (Strength–Opportunity): Leveraging strengths to maximize opportunities.

WO (Weakness-Opportunity): Using opportunities to overcome internal weaknesses.

ST (Strength–Threat): Applying strengths to mitigate external risks.

WT (Weakness-Threat): Reducing both internal and external vulnerabilities through defensive strategies (Kurniawan et.al, 2019).

Analytic Network Process (ANP)

The Analytic Network Process (ANP) is a decision-making framework designed to handle complex problems involving interrelated elements. Developed by Thomas Saaty as an extension of the Analytic Hierarchy Process (AHP), ANP addresses one of AHP's key limitations: its inability to model feedback loops and dependencies between factors.

While AHP structures decision problems hierarchically—from goal to criteria to alternatives—ANP organizes them as a network. Here, criteria and sub-criteria are grouped into clusters, which can influence one another reciprocally. Arrows or directional links represent the degree of influence, capturing the dynamic interplay between factors in real-world decision-making.

One of ANP's main advantages lies in its flexibility. It allows decision-makers to model complex, non-linear interactions—ideal for systems like education planning, where policy, resources, stakeholder perceptions, and technology interact in intricate ways (Kurniawan et al., 2023). As such, ANP has been widely used in multi-criteria decision-making contexts including public policy evaluation, infrastructure planning, and educational reform (Rahman & Santosa, 2022; Wijaya & Putri, 2021).



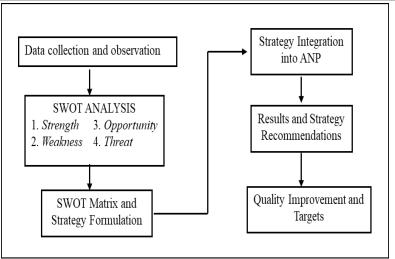


Figure 1 Research Framework

RESEARCH METHODS

Research Approach

This study adopts a **qualitative research approach**, which is particularly effective in capturing in-depth insights, especially in educational and institutional settings where complex social and cultural dynamics are at play. As defined by Sulistyo (2023), qualitative research does not rely on statistical procedures but draws from observations, interviews, and document analysis—such as school policies, regulations, books, multimedia records, and field notes.

This approach is appropriate for exploring how a modern Dayah institution responds to the demands of the digital era, particularly the challenges of aligning religious education with technological integration in the context of the **Industrial Revolution 5.0**. Qualitative methods allow the researcher to deeply understand the perspectives of stakeholders and the lived realities of students and teachers within the Dayah system.

Research Site and Informants

The research was conducted at **Dayah Samudera Pasai Madani**, located in Jeumpet Ajun, Darul Imarah District, Aceh Besar, Aceh Province. This institution is a prominent example of a religious-based school (pesantren) that has made efforts to integrate general education into its Islamic curriculum. It serves as a relevant site for examining the intersection of tradition and innovation in Islamic schooling.

Informants were selected using the **Snowball Sampling** technique, a non-probability method suited for cases where the population is difficult to access or not clearly defined (Masrukhin, 2014). Initial informants—chosen purposively for their familiarity with the research focus—were asked to recommend others with similar knowledge. This method enabled the researcher to trace a network of individuals involved in managing and experiencing the integration of technology in Dayah education.

The total number of informants was eight, encompassing different roles within the school structure:

No	Internal Respondents	Role	Population	Sample
1	Dayah Leader	Management	1	1
2	Headmaster	Management	1	1
3	Teachers	Educators	57	2

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4	Students	Learners	236	2
5	Administrative Staff	Support	1	1
6	IT Staff	Support	1	1
	Total		297	8

Data Collection Techniques

Data were collected using triangulated qualitative methods, including:

Observation: The researcher directly observed the learning environment, focusing on how technology is integrated into classrooms, infrastructure usage, and teacher-student interaction patterns. This helped contextualize the interview data with real-time conditions.

In-depth Interviews: Semi-structured interviews were conducted with school leaders, teachers, and students to explore their experiences, expectations, and challenges related to technology use in teaching and learning.

Document Analysis: Additional data were gathered from institutional documents, photos, learning schedules, ICT usage records, and field reports to support and validate findings from observation and interviews.

Data Analysis Methods

To develop a strategic framework, this study combined SWOT analysis and the Analytic Network Process (ANP). SWOT analysis was used to assess both internal (strengths and weaknesses) and external (opportunities and threats) factors influencing Dayah Samudera Pasai Madani. This provided a structured foundation for strategy formulation (Gürel & Tat, 2017; Helms & Nixon, 2010). To make this analysis more quantifiable and objective, two supporting tools were employed:

- IFAS (Internal Factor Analysis Summary): Assessed elements such as facilities, curriculum, and teacher competencies (Rangkuti, 2013).
- EFAS (External Factor Analysis Summary): Evaluated environmental factors, including technological trends, policy frameworks, and societal expectations (Kotler & Keller, 2016).

Each factor was weighted and scored to prioritize focus areas in strategic planning.

ANP was then applied to determine the priority of technology implementation. Unlike AHP, which relies on a linear hierarchy, ANP accounts for interconnected relationships between criteria and alternatives (Saaty, 2004; Saaty & Vargas, 2013). This method enabled the modeling of complex decision systems, such as how infrastructure, policy, teacher readiness, and student behavior influence each other in the adoption of educational technology (Meade & Sarkis, 1999).

The combined use of SWOT and ANP allows the institution not only to understand its current strategic position but also to make informed, data-driven decisions on what technologies to prioritize in the future (Shrestha et al., 2019; Gorener et al., 2012).

RESULTS

This section presents the main findings of the research conducted at MTs Dayah Samudera Pasai Madani Aceh Besar related to the readiness and strategy of technology integration in improving the competitiveness of graduates. The results of the study were obtained through two analytical approaches, namely SWOT Analysis to identify the internal and external conditions of the institution, and Analytic Network Process (ANP) to determine the most appropriate technology priorities to be implemented. By combining these two approaches,



the study provides a comprehensive and measurable strategic picture in formulating policies and directions for future institutional development. The description of the results begins with a discussion of the SWOT analysis.

SWOT Analysis

SWOT analysis in this study is used as a strategic tool to identify internal (IFAS) and external (EFAS) factors that affect MTs Samudera Pasai Madani in an effort to improve school competitiveness and the ability to absorb graduates into favorite schools. By understanding the strengths (Strengths), weaknesses (Weaknesses), opportunities (Opportunities), and threats (Threats) faced, schools can design more effective strategies to optimize the quality of education and expand access for their students to enter favorite schools.

Based on data from interviews conducted with various parties, including the principal, teachers, and from favorite high schools, a clear picture was obtained regarding the internal and external factors that affect MTs Samudera Pasai Madani. Through an in-depth analysis of the strengths, weaknesses, opportunities, and threats faced by the school, a SWOT matrix was compiled that describes the actual condition of the school and strategies that can be applied to improve the competitiveness of MTs Samudera Pasai Madani. The SWOT matrix is presented in the following table.

IFAS EFAS	Strength(S)	Weakness(W)
	 Religion and Character Based Education Comprehensive Curriculum Cooperative Teacher Support 	 Limited Technology Facilities Curriculum Gap with Favorite High Schools/Islamic High Schools
Opportunity(O)	SO Strategy	WO Strategy
 Development of Learning Technology Collaboration with Favorite High Schools/Vocational High Schools 	(Strength-Opportunity) 1. Developing an E-Learning Platform Based on Religious Values 2. Increase Collaboration with Favorite High Schools/Islamic High Schools to Improve the Curriculum 3. Teacher Training in the Use of Technology	 (Weakness-Opportunity) Improving Technology Facilities through the Development of Learning Applications Reducing Curriculum Gaps through Collaboration with Favorite High Schools/Islamic High Schools
Threats(T)	ST Strategy (Strength-Threats)	WT Strategy
 Competition with Other Schools Changes to Education Regulations. 	 Increasing Competitiveness through Character Education Adapting the Curriculum to Changes in Education Regulations. 	 (Weakness-Threats) Overcoming Facility Limitations with Effective Budget Management Reducing the Curriculum Gap by adjusting education regulations Overcoming Competition by Improving the Quality of Graduates

Figure 2. IFAS and EFAS strategies



IFAS and EFAS Factor Analysis

In analyzing the development strategy of MTs Samudera Pasai Madani, the SWOT approach was used to understand the internal and external conditions of the institution as a whole. The results of the internal factor analysis (IFAS) showed that the total score obtained was 3.86, which reflects a strong internal position. Of this total, the strength score reached 3.20, with the dominant factor being religious and character-based education which obtained the highest score of 1.36. This factor is the main advantage of MTs Samudera Pasai Madani in creating competitiveness, supported by two other strengths, namely a comprehensive curriculum and cooperative teacher support (Mukti et. al et al., 2021). On the other hand, internal weaknesses only contributed a score of 0.66, indicating that the existing weaknesses were not too dominant. However, limited technological facilities were the main weakness with the highest score of 0.38, followed by the curriculum gap with favorite SMA/MA, which is still a challenge in itself in preparing competitive graduates.

Meanwhile, from the results of the external factor analysis (EFAS), a total score of 3.10 was obtained. This score is divided into two main components, namely opportunities with a score of 2.24 and threats with a score of 0.86. These results indicate that MTs Samudera Pasai Madani is able to respond to opportunities effectively and is relatively successful in minimizing the impact of external threats (Setiawan & Ramadhan, 2022). The biggest opportunity identified is the development of learning technology, which achieved the highest score of 1.38. Another significant opportunity is collaboration with favorite SMA/MA, which can help in synchronizing the curriculum and increasing the absorption of graduates. On the other hand, the biggest threat comes from competition with other schools, which has a score of 0.66, followed by potential changes in education regulations as external factors that need to be anticipated (Marlina & Yusuf, 2023).

To determine the strategic position of MTs Samudera Pasai Madani quantitatively, calculations were made based on the difference between strengths and weaknesses to determine the X axis, and the difference between opportunities and threats to determine the Y axis. The calculation results show that the X axis has a value of 2.54 (the result of 3.20 minus 0.66), while the Y axis has a value of 1.38 (the result of 2.24 minus 0.86). These coordinate points indicate that MTs Samudera Pasai Madani is in the SO (Strength-Opportunity) strategy quadrant, which means that this institution is advised to use all its strengths to take advantage of existing opportunities. Based on these results, the main strategy that can be chosen is a growth-oriented strategy, which focuses on developing and utilizing internal potential to strengthen the school's position in facing challenges and competition in the digital era.

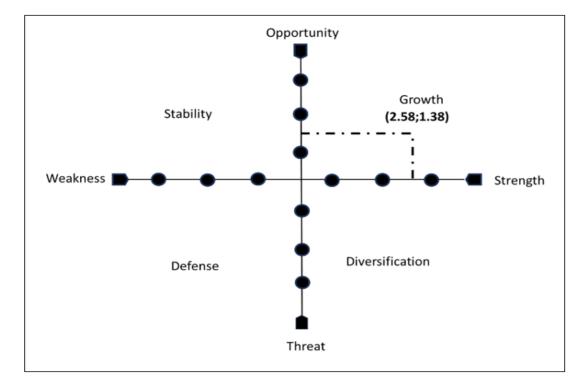


Figure 3. Matrix Quadrants



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Technology That Can Be Utilized to Improve the Quality and Competitiveness of MTS Samudera Pasai Madani Graduate

The assessment of the effectiveness criteria of technology at MTs Samudera Pasai Madani was carried out using the Analytical Network Process (ANP) method. The ANP method is an analysis tool that is able to describe the level of importance of various factors by considering the interdependence relationship between both criteria and sub-criteria. This method helps decision makers in determining the weight for each criterion systematically. ANP is considered a more accurate approach because it is able to solve complex problems involving dependencies and feedback between criteria and sub-criteria. The following are the stages in determining the effectiveness of technology using the Analytical Network Process (ANP):

Network Model Creation

The first stage in implementing ANP is to build a network model that represents the elements involved in decision making. In the context of assessing the effectiveness of technology at MTs Samudera Pasai Madani, these elements include the main criteria such as infrastructure availability, teacher competence in technology, student acceptance of technology use, and school policy support. This model is not arranged hierarchically as in AHP, but rather in the form of a network that shows the interplay between elements.

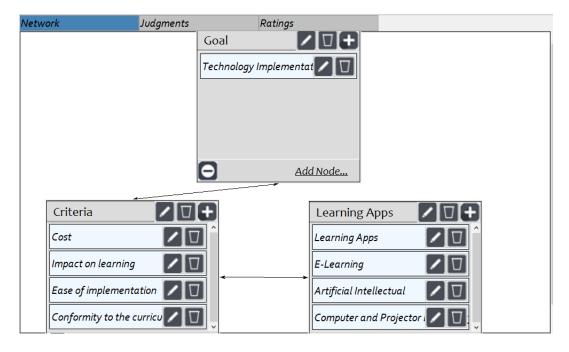
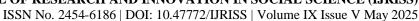


Figure 4. Analytic Network Process (ANP)

Determining Criteria that Support Alternative Technologies

In determining alternative technologies that support learning, there are several main criteria that must be considered so that their implementation truly has a positive impact. The first is the suitability with the curriculum. The learning technology used must be in line with the curriculum in force in educational institutions. This is important because if there is a mismatch between technology and curriculum, the achievement of expected competencies can be hampered. Given that national curriculum policies often change to keep up with the times, the technology applied must have the flexibility to adapt dynamically to changes in these policies.

Furthermore, the ease of implementation aspect is also an important factor. Effective technology must be user-friendly, not require complicated training, and have an interface that is easy for users to understand. Excessive complexity actually risks hindering the learning process. In addition, the technology must be compatible with various devices such as computers, tablets, and smartphones so that access is evenly distributed to students and teachers. Limited accessibility can reduce user participation, so that the stability and reliability of technology are absolute requirements. Technology that often experiences technical problems can disrupt the learning





process and reduce student learning motivation. Therefore, stable performance and fast response are essential. The next aspect is cost. Cost efficiency is important so that the use of technology does not burden educational institutions and maintains the affordability of education itself. Costs that must be taken into account include initial procurement costs such as purchasing devices, licenses, and service subscriptions, as well as long-term operational costs including system updates, maintenance, and technical support services. Therefore, it is important to ensure that the initial investment is commensurate with the long-term benefits obtained, and that the technology chosen has low and sustainable maintenance costs. Finally, an equally important criterion is the impact on learning. The technology implemented should be able to increase the effectiveness of the teaching and learning process and student learning outcomes. Good technology can deepen conceptual understanding, increase interactivity, and develop students' digital skills. With a variety of learning formats such as videos, images, and simulations, students become more interested and actively involved, so that understanding of the material can be achieved more deeply.

Table 2. Technology Assessment Criteria

Criteria	Mark	Priority
Compliance with the curriculum	0.2150	1
Cost	0.1724	2
Impact on learning	0.1610	3
Ease of implementation	0.1067	4

Determining the Most Effective Technology Alternatives

Based on the interview results, it is known that there are several learning technologies that have been implemented at MTs Samudera Pasai Madani, including using E-Learning. MTs Samudera Pasai Madani utilizes e-learning platforms such as Google Classroom and Moodle to facilitate distance and hybrid learning. This platform allows teachers to share learning materials, assignments, and assessments in a structured manner. Students can access materials anytime and anywhere, increasing learning flexibility. In addition, the discussion and collaboration features in this platform allow interaction between teachers and students even though they are not in the same classroom. The use of e-learning also helps schools manage learning administration more efficiently. In addition, there is Artificial Intelligence (AI). MTs Samudera Pasai Madani has begun to adopt Artificial Intelligence (AI) technology to create a more personalized learning experience. One of its implementations is an adaptive learning system, which can adjust the material and level of difficulty based on the individual abilities of students. In addition, chatbots are used as virtual assistants to answer student questions quickly, especially outside of class hours. This AI technology helps students learn independently and makes it easier for teachers to monitor student learning progress. Then there is the implementation of the Learning Application. To make learning more interactive and interesting, MTs Samudera Pasai Madani uses various learning applications such as Quizizz, Canva and Microsoft Teams. These applications not only support the learning process but also train students in digital skills needed in the modern era.

Computer and Projector Lab

MTs Samudera Pasai Madani also improves physical facilities by providing a computer lab equipped with modern devices and projectors in each classroom. The computer lab is used for hands-on practice, such as learning coding, graphic design, or data processing. Meanwhile, the projector helps teachers deliver material visually, such as showing videos, presentations, or interactive simulations. This facility ensures that students not only understand the theory, but also have the opportunity to apply their knowledge practically.



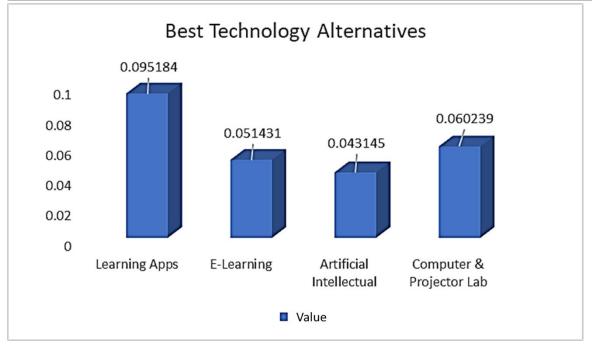


Figure 5. Choice of Learning Technology

DISCUSSION

Based on the results of the SWOT matrix data analysis, there are several strategies that can be applied by MTs Samudera Pasai Madani to strengthen the school's competitiveness, especially through the Strength-Opportunity (SO) approach. This strategy aims to utilize internal strengths to optimize external opportunities, strengthening the school's position in the increasingly competitive modern education competition.

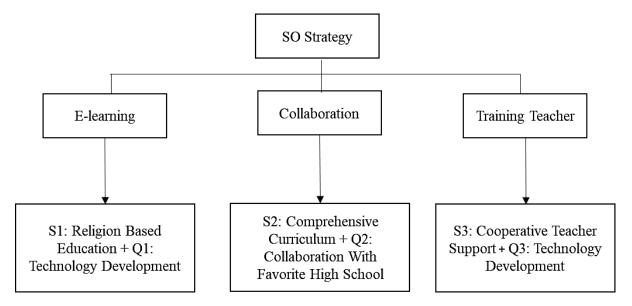


Figure 6. Strategy based on SWOT Analysis

One of the main strategies is to develop an e-learning platform based on religious values. E-learning allows students to learn flexibly and independently (Sajiatmojo, 2021). However, to maintain the identity as an Islamic-based institution, platform development needs to be integrated with religious values. This platform can contain Islamic-based teaching materials, digital studies, discussion forums with teachers, and quiz features with a sharia approach. The project-based learning approach combined with character education also strengthens the transfer of values to students (Alimuddin & Kurniawan, 2023). Interactive media quizz preaching videos, practice questions based on the Qur'an and Hadith, and Islamic thematic quizzes increase students' active learning engagement (Hasanah & Nurlaelawati, 2022). This initiative also provides added



value to attract prospective students and parents who want a combination of Islamic learning and modern technology. The next strategy is to increase collaboration with favorite SMA/MA to improve the curriculum. This is important because there is a gap between the MTs curriculum and the academic demands of the next level. Collaboration can be in the form of synchronizing teaching materials, teacher training, and transitional academic programs. These efforts strengthen students' readiness to face higher education levels (Nugroho & Damanik, 2022). The "Bridge Class" program and study visits to leading high schools can increase students' expectations and enthusiasm for learning (Ibrahim & Sari, 2024). In addition, mentoring by alumni and academic scholarship opportunities enrich their learning experiences. These curriculum adjustments give students confidence in pursuing education at more competitive higher education institutions.

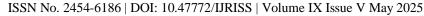
Other strategy is teacher training in the use of learning technology. Teachers are important agents of change in the adoption of digitalization in education (Turnip, 2023). Training not only improves technical skills, but also pedagogical ones. The material can include the use of Learning Management Systems (LMS) such as Moodle or Google Classroom, interactive teaching material design with Canva or PowerPoint, and the use of artificial intelligence (AI) for adaptive learning (Putri et al., 2023). This training also includes virtual classroom management, digital-based evaluation, and gamification techniques to encourage student participation (Ramadhan et al., 2023). By increasing digital competence, teachers can create more engaging and effective learning experiences, and adapt learning to student needs based on data. In terms of technology that can be utilized, learning applications are the most effective in improving the quality of graduates. This application supports digital learning through mobile devices and computers, making it easier for teachers to deliver materials innovatively (Pangestu & Purwanto, 2021). Applications such as Quizizz, Canva, Google Classroom, and Microsoft Teams can increase student engagement and strengthen conceptual understanding more interactively (Sarah, 2024). In addition, the use of these applications has been shown to increase student learning motivation (Hartati et al., 2024). Recent research shows that students who use learning applications are more active and motivated in learning activities (Yuliana et al., 2023).

Computer labs and projectors are also prioritied technology. Although not as high as learning applications, these facilities are still crucial in supporting visual and interactive learning (Kurniawan & Susanto, 2023). Projectors make it easier for teachers to deliver complex materials such as science and mathematics through videos and simulations, while computer labs allow students to learn digital skills such as data analysis or coding. The combination of the two creates a visually rich and exploratory learning environment. E-learning is in third place. Although useful in blended learning, the full implementation of this system is still hampered by boarding school policies that prohibit the use of mobile phones. However, this platform remains relevant in providing online materials and out-of-class communication (Rahmawati & Lestari, 2023). E-learning can be accessed via school computers to support independent learning and material enrichment. Finally, artificial intelligence (AI) technology has the lowest weight. Although AI promises efficiency in learning adaptation and material personalization, its use at MTs Samudera Pasai Madani is still limited. The implementation of AI requires special training for teachers and readiness of digital infrastructure (Wijaya & Novitasari, 2024). However, in the future, this technology can be an additional strength if the integration is carried out gradually and on target.

Overall, MTs Samudera Pasai Madani can increase its competitiveness through strengthening Islamic valuebased learning and digitalization, cross-level collaboration, strengthening teacher capacity, and strategic use of learning technology.

CONCLUSION

The results of the study indicate that the most appropriate development strategy for MTs Samudera Pasai Madani is the Growth-Oriented Strategy, especially through the SO (Strength-Opportunity) approach. This strategy includes the development of an e-learning platform based on religious values, increasing cooperation with favorite SMA/MA in order to improve the curriculum, and training teachers in the use of learning technology. On the other hand, learning applications were chosen as the best technology because they have the highest weight in supporting the curriculum, cost efficiency, ease of implementation, and a positive impact on the process and learning outcomes of students. This technology is considered effective in improving the quality of graduates so that they are able to compete in favorite secondary schools, especially in Banda Aceh and Aceh





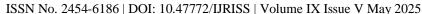
Besar. Based on these findings, the researcher recommends that schools expand collaboration with favorite SMA/MA in order to align the curriculum and improve students' readiness to continue their education. In

SMA/MA in order to align the curriculum and improve students' readiness to continue their education. In addition, schools are advised to immediately implement and optimize interactive, easily accessible learning applications that are in accordance with the needs of students and teachers. With the right strategy and technology, MTs Samudera Pasai Madani can improve the quality of education and strengthen the competitiveness of its institutions in the future.

REFERENCE

- 1. Alimuddin, R., & Kurniawan, B. (2023). Integration of character education in project-based learning in madrasahs. Journal of Islamic Education, 11(1), 45–57. https://doi.org/10.21580/jpi.2023.11.1.1234
- 2. Gorener, A., Toker, K., & Ulucay, K. (2012). Application of SWOT analysis for strategic planning in the higher education sector: A case study of a university in Turkey. Procedia Social and Behavioral Sciences, 58, 953–961.
- 3. Gürel, E., & Tat, M. (2017). SWOT analysis: A theoretical review. Journal of International Social Research, 10(51), 994–1006.
- 4. Hartati, E., Ramadhani, Y., & Fitriani, S. (2024). The influence of learning applications on junior high school students' learning motivation. Journal of Educational Technology, 18(2), 97–105. https://doi.org/10.36709/jtp.v18i2.4567
- 5. Hasanah, U., & Nurlaelawati, E. (2022). Interactive media based on Islamic values: Online learning innovation in madrasas. Tarbawi: Journal of Islamic Education, 5(2), 123–134.
- 6. Hashim, H. (2018). Application of technology in the digital era education. International Journal of Research in Counseling and Education, 2(1), 1–5.
- 7. Helms, M. M., & Nixon, J. (2010). Exploring SWOT analysis—where are we now? Journal of Strategy and Management, 3(3), 215–251.
- 8. Ibrahim, A., & Sari, M. (2024). Educational level transition program and student learning motivation. Journal of Islamic Education, 16(1), 33–44. https://doi.org/10.32678/jie.v16i1.1012
- 9. Kotler, P., & Keller, K. L. (2016). Marketing Management (15th ed.). Pearson Education.
- 10. Kurniawan, D., & Susanto, R. (2023). Optimizing computer laboratories to improve digital skills of madrasah students. Journal of Education and Technology, 12(3), 201–212.
- 11. Marlina, R., & Yusuf, M. (2023). Strategic management in Islamic schools: A SWOT analysis approach in enhancing school competitiveness. Journal of Islamic Educational Leadership, 5(1), 34–48. https://doi.org/10.1234/jiel.v5i1.2023
- 12. Masrukhin. (2014). Qualitative Research Methodology. Media Ilmu Press.
- 13. Meade, L. M., & Sarkis, J. (1999). Analyzing organizational project alternatives for agile manufacturing processes: An analytic network approach. International Journal of Production Research, 37(2), 241–261.
- 14. Miller, J. (2022). Strategic leadership in educational technology. Journal of Educational Change, 23(1), 89–106.
- 15. Mukti, A., Syafaruddin, S., & Athahillah, A. (2021). Implementationsetiawan of Dayah Mudi Curriculum Management
 Islamic Sciences, 6(2),

 Mesra Bireuen Regency. Tazkir: Journal of Research in Social and 169–190. https://doi.org/10.24952/tazkir.v6i2.3020
- 16. Nugroho, T., & Damanik, E. (2022). Curriculum collaboration between education levels: A case study between MTs and MA. Education: Journal of Islamic Education, 8(1), 88–100.
- 17. Nurhasanah, S., Widodo, H., & Lestari, R. (2023). Character-based education model in Islamic junior high school: Strengthening internal capabilities through curriculum and teacher collaboration. Indonesian Journal of Educational Management, 7(2), 112–124. https://doi.org/10.21009/ijem.072.03
- 18. OECD. (2020). Education responses to COVID-19: Embracing digital learning and online collaboration. OECD Policy Brief.
- 19. Pangestu, AR, & Purwanto, A. (2021). Android-based Hijaiyah and Iqro Letter Learning Application for Children. EJECTS: E-Journal of Computer, Technology and Informations System, 1(1), 16–21.
- 20. Putri, NL, Hidayati, S., & Aryani, T. (2023). Readiness of madrasah teachers in using digital learning technology. Journal of Educational Innovation, 7(2), 110–120.
- 21. Rahman, A., & Santosa, B. (2022). Analytic Network Process in public policy evaluation: A case study





- of digital-based MSME development. Journal of Strategic Management and Public Policy, 5(1), 47-60. https://doi.org/10.21009/jmskp.051.2022
- 22. Rahmawati, D., & Lestari, I. (2023). Implementation of e-learning in boarding school-based madrasahs in the digital era. EduTech: Journal of Islamic Educational Technology, 4(1), 77–89.
- 23. Ramadhan, H., Setyawan, R., & Tania, A. (2023). Gamification as a digital learning strategy in madrasas. Journal of Modern Teaching and Learning, 9(1), 65–73.
- 24. Rangkuti, F. (2013). Analisis SWOT: Teknik Membedah Kasus Bisnis. Gramedia Pustaka Utama. References (APA 7 Style)
- 25. Saaty, T. L. (2004). Fundamentals of the analytic network process. Dependence and Feedback in Decision-Making with a Single Network, 1(1), 21–57.
- 26. Saaty, T. L., & Vargas, L. G. (2013). Decision Making with the Analytic Network Process: Economic, Political, Social and Technological Applications with Benefits, Opportunities, Costs and Risks. Springer.
- 27. Saiful. (2018). Character Education Model at Dayah Darussalam Labuhan Haji South Aceh. Journal MUDARRISUNA: Islamic Religious Education Study Media, 8(1), 195–217.https://jurnal.arraniry.ac.id/index.php/mudarrisuna/article/view/2447
- 28. Sarah, S. (2024). Analysis of Technology-Based Learning Methods in Improving Learning Motivation of Junior High School Students of Grade IX SMP Muhammadiyah 22 Pamulang. National Seminar and Scientific Publication 2024 FIP UMJ, 1852–1860.
- 29. Sarah. (2024). Learning applications as a tool to increase student learning motivation. Journal of Educational Technology and Innovation, 11(1), 14–23. https://doi.org/10.1007/jtip.2024.11.1.14
- 30. Setiawan, T., & Ramadhan, F. (2022). Utilizing external opportunities in school development strategies: A case study on technology and partnership initiatives. International Journal of Educational Development, 9(4), 201–215. https://doi.org/10.1016/ijedudev.2022.04.005
- 31. Sholeh, MI, & Efendi, N. (2023). Technology Integration in Islamic Education Management: Teacher Performance in the **Digital** Jurnal Tinta. 104-126. Improving 5(2),https://ejournal.alqolam.ac.id/index.php/jurnaltinta/article/view/1049
- 32. Shrestha, R. K., Shrestha, M. B., & Sharma, D. R. (2019). Application of SWOT-AHP technique for strategic planning of cement industry in Nepal. International Journal of Technology, 10(3), 499–509.
- 33. Sugiarto, & Farid, A. (2023). Digital Literacy as a Way to Strengthen Character Education in the Era of Society Cetta: Journal of Educational Sciences, 6(3),580-597. 5.0. https://doi.org/10.37329/cetta.v6i3.2603
- 34. Sulistiyo, U. (2023). Qualitative Research Methods. PT Salim Media Indonesia.
- 35. Trucano, M. (2016). Teachers, Teaching and ICTs. World Bank EdTech Notes.
- 36. Turnip, B. (2023). The role of teachers as digital agents in technology-based education. Journal of Education and Digital Transformation, 10(4), 142–153.
- 37. Turnip, RS (2023). IMPROVING DIGITAL LITERACY AMONG STUDENTS: INTRODUCTION AND PRACTICE OF USING EDUCATIONAL TECHNOLOGY Abstract. Journal of Education and Teaching Review, 6(4), 2302–2310.
- 38. WWijaya, A., & Novitasari, R. (2024). Artificial intelligence in madrasah education: Opportunities and challenges. Journal of Islamic Educational Technology, 3(2), 56–68.
- 39. Wijaya, R., & Putri, S. D. (2021). Implementation of ANP in multi-criteria decision making for sustainable urban planning. Indonesian Journal of Decision Making. https://doi.org/10.31289/ijdm.v6i3.2021
- 40. Yuliana, A., Pratama, G., & Suryani, N. (2023). The effect of using interactive applications on student learning participation. Journal of Educational Science and Technology, 14(2), 101–111.