Adaptation and Transformation of Pesantren Education in Facing The Era of Muslim Society 5.0

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Abstract

This study aims to analyze the transformation of education in Pesantren Al Hikmah 02 Benda in facing the era of Society 5.0. The research method used is qualitative with a case study approach. Data were collected through interviews with caregivers, teachers, administrators, and Santri, as well as through participant observation and documentation. Qualitative research analysis was strengthened by SWOT analysis to identify the potential of pesantren in facing new challenges in the era of Society 5.0. The results showed: a) The transformation of Pesantren Al Hikmah 02 refers to the principle of *Al-muhafadzatu 'ala alqadimi alshalihi wa al akhdu bi al jadidi al ashlah*; b) Transformation in the 4.0 era has an impact on the resilience and sustainability of the pesantren education system, by referring to the AGIL system (Adaptation, Goal Attainment, Integration, Latency); c) The Three in One innovative curriculum is used as a strategy to answer the challenges of the era of Muslim Society 5.0. The Three in One curriculum innovation strategy can be a model for other pesantren in facing the challenges of the digital era and industrial revolution. The transformation of pesantren education while maintaining the values and traditions of pesantren can contribute to the development of adaptive and sustainable pesantren education.

Keywords: Education Transformation, Muslim Society 5.0, Pesantren, SWOT Analysis.

Abstrak

Penelitian ini bertujuan menganalisis transformasi pendidikan di Pesantren Al Hikmah 02 Benda dalam menghadapi era Masyarakat 5.0. Metode penelitian yang digunakan adalah kualitatif dengan pendekatan studi kasus. Data dikumpulkan melalui wawancara dengan pengasuh, guru, pengurus, dan santri, serta melalui observasi partisipan dan dokumentasi. Analisis penelitian kualitatif diperkuat dengan analisis SWOT untuk mengidentifikasi potensi pesantren dalam menghadapi tantangan baru di era Masyarakat 5.0. Hasil penelitian menunjukkan: a) Transformasi pesantren Al Hikmah 02 mengacu pada kaidah Al-muhafadzatu 'ala alqadimi alshalihi wa al akhdu bi al jadidi al ashlah; b) Transformasi di era 4.0 berdampak pada ketahanan dan keberlanjutan sistem pendidikan pesantren, dengan mengacu kepada pada sistem AGIL (Adaptation, Goal Attainment, Integration, Latency); c) Kurikulum inovatif Three in One digunakan sebagai strategi untuk menjawab tantangan era Masyarakat Muslim 5.0. Strategi inovasi kurikulum Three in One dapat menjadi model bagi pesantren lain dalam menghadapi tantangan era digital dan revolusi industri. Transformasi

pendidikan pesantren dengan tetap mempertahankan nilai-nilai dan tradisi pesantren dapat berkontribusi pada pengembangan pendidikan pesantren yang adaptif dan berkelanjutan.

Kata Kunci: Transformasi pendidikan, Pesantren, Muslim Society 5.0, Analisis SWOT, Al Hikmah 02.

INTRODUCTION

Pesantren as a genuine educational institution typical of the archipelago until now still exists as an educational institution of interest to the Indonesian people.[1] The existence of pesantren is inseparable for various reasons; *first*, pesantren as educational institutions whose management is community-based, *second*, pesantren as educational institutions that are able to adapt according to the times, *third*, pesantren have an accommodating culture towards development.[2] The existence of pesantren and their significant growth until now prove their success in responding to the challenges of the times and their strategic role in solving various national problems.[3]

Based on statistical data from the Directorate of Early Childhood Education and Pesantren Education of the Ministry of Religious Affairs, in 2023 there will be 39,220 Pesantren throughout Indonesia.[4] The realization of the existence of Pesantren is proven by the existence of Law Number 18 of 2019 concerning Pesantren. Through the Law on Pesantren, the implementation of Pesantren Education is recognized as part of the implementation of national education.[5] Pesantren education is required to be adaptive to change, pesantren are required to transform according to the needs of the community and be responsive to the times.

Pesantren are required to be adaptive to change, especially in facing the era of the Industrial Revolution 4.0 and the era of Muslim Society 5.0.[6] The transformation of pesantren education does not mean changing the characteristics of the pesantren itself but rather inserting various educational and teaching activities according to the needs of the times both through the curriculum and increasing the competence of students both hard skills and soft skills by sharing pesantren activities. This is reinforced by the data of 4,175,531 Santri[7] who are not only

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[1] Syamsul Hadi and Dewi Anggraeni, "Pesantren, Pecinan and Multicultural Education: A Qualitative Case Study of Kauman Pesantren, Lasem, Central Java," *Edukasia Islamika* 6, no. 2 (2021): 273–88, https://doi.org/10.28918/jei.v6i2.4932.

[2] Hanun Asrohah, "The Dynamics of Pesantren: Responses toward Modernity and Mechanism in Organizing Transformation," *Journal of Indonesian Islam* 5, no. 1 (2011): 67–90, https://doi.org/10.15642/JIIS.2011.5.1.66-90.

[3] Humas, "Kemenag Sinergikan PTKI Dan Pesantren, Jawab Masalah Kebangsaan," Kemenag.go.id, 2020, https://kemenag.go.id/nasional/kemenag-sinergikan-ptki-dan-pesantren-jawab-masalah-kebangsaan-8ucm9i.

[4] Pd Pontren, "Data Pesantren Dan Pendidikan Keagamaan Islam," Direktorat Pendidikan Diniyah dan Pondok Pesantren Direktorat Jenderal Pendidikan Islam Kementerian Agama RI., 2023, https://ditpdpontren.kemenag.go.id/.

[5] Pemerintah Pusat, "Undang-Undang (UU) Nomor 18 Tahun 2019 Tentang Pesantren" (2019).

[6] Zainal Abidin, "Tradisi Pendidikan Pesantren Dalam Mengembangkan Jiwa Kepemimpinan Profetik," *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 5, no. 1 (2024): 84–97, https://doi.org/10.31538/munaddhomah.v5i1.773; Muhamad Arif, Mohd Kasturi Nor Abd Aziz, and Yuldashev Azim Abdurakhmonovich, "Trend Strategy to Prevent Bullying in Islamic Boarding Schools (Pesantren)," *Jurnal Ilmiah Peuradeun* 12, no. 2 (May 30, 2024): 639–70, https://doi.org/10.26811/peuradeun.v12i2.1087; Mizanul Hasanah and Muhammad Anas Maarif, "Solusi Pendidikan Agama Islam Mengatasi Kenakalan Remaja Pada Keluarga Broken Home," *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah* 4, no. 1 (May 23, 2021): 39–49, https://doi.org/10.54069/attadrib.v4i1.130.

[7] Pontren, "Data Santri," Kemenag.go.id, 2022.

equipped with religious knowledge but also the formation of national character, independence, and social sensitivity.[8]

Research related to the transformation of pesantren education has been carried out by several previous researchers, related to; the transformation of pesantren education in the era of globalization carried out by transforming the curriculum.[9] The next research discusses the opportunities and challenges of pesantren in the digital era.[10] The next research examines the transformation of yellow book (*Kitab Kuning*)-based pesantren education to digital platforms through YouTube and Facebook.[11] This research was conducted to complement existing research, the transformation of pesantren education is needed in facing the era of Muslim society 5.0 which emphasizes being able to solve various challenges and social problems by utilizing various innovations born in the era of the Industrial Revolution 4.0.[12] Starting from the transformation that has been carried out in the era of the Industrial Revolution 4.0, then how the pesantren strategy through a strategic management review can prepare for the era of society 5.0.

Ashoka's research in 2020 revealed that 92 million Indonesians are under the age of 20, illustrating that more than 65% of the population is in their productive years.[13] This shows great potential in advancing the Indonesian nation through the creativity and productivity of the younger generation. However, a significant challenge faced is the rapid development of technology, which affects various aspects of human life. To create a balance between humans, nature, and technology, the concept of smart society 5.0 has emerged[14], which is based on the assumption that rapid technological change can improve the welfare of Society.[15] Therefore,

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[8] M. Ali Haidar, Mizanul Hasanah, and Muhammad Anas Ma`arif, "Educational Challenges to Human Resource Development in Islamic Education Institutions," *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 3, no. 4 (2022): 366–77, https://doi.org/10.31538/munaddhomah.v3i4.309; Nur Hariadi, Bambang Sumardjoko, and Maryadi, "Charismatic Leadership in Improving The Quality of Resources in Islamic Boarding School," *Kharisma: Jurnal Administrasi Dan Manajemen Pendidikan* 3, no. 2 (October 14, 2024): 83–96, https://doi.org/10.59373/kharisma.v3i2.42.

[9] Andit Triono et al., "Transformasi Pendidikan Pesantren Di Era Globalisasi: Adaptasi Kurikulum Yang Berwawasan Global," *Al-Tarbawi Al-Haditsah: Jurnal Pendidikan Islam* 7, no. 1 (2022): 60–71, https://doi.org/10.24235/tarbawi.v7i1.10405.

[10] Siti Aisyah et al., "Kiai Leadership Concept in The Scope of Pesantren Organizational Culture," *Tafkir: Interdisciplinary Journal of Islamic Education* 3, no. 1 (2022): 40–59, https://doi.org/10.31538/tijie.v3i1.106; Muhammad Turhan Yani et al., "Advancing the Discourse of Muslim Politics in Indonesia: A Study on Political Orientation of Kiai as Religious Elites in Nahdlatul Ulama," *Heliyon* 8, no. 12 (2022): e12218, https://doi.org/10.1016/j.heliyon.2022.e12218; Arif Khairur Rozaq, Basri Basri, and Indah Indah, "Kiai's Leadership in Strengthening Santri's Moderation Attitude in Islamic Boarding Schools," *Nidhomul Haq : Jurnal Manajemen Pendidikan Islam* 7, no. 2 (July 25, 2022): 284–94, https://doi.org/10.31538/ndh.v7i2.2322.

[11] Agus Moh Sholahuddin and Saeful Anwar, "Transformasi Model Pendidikan Pesantren Berbasis Kitab Kuning Ke Digital Platfrom (Studi Di Pondok Pesantren Al-Ma'ruf Kendal, Dander, Bojonegoro)," *EDUKASIA* 4, no. 1 (2023): 241–48.

[12] Katsuaki Suzuki, "Contribution of the Japan Society for Educational Technology toward a Super-Smart Society (Society 5.0)," *Information and Technology in Education and Learning*, 2021, https://doi.org/10.12937/itel.1.1.inv.p001.

[13] Ashoka, "Ashoka," https://www.ashoka.org/, 2020, https://www.ashoka.org/en-aaw/about-ashoka.

[14] Carin Holroyd, "Technological Innovation and Building a 'Super Smart' Society: Japan's Vision of Society 5.0," *Journal of Asian Public Policy*, 2022, https://doi.org/10.1080/17516234.2020.1749340.

[15] Atsushi Deguchi, "From Smart City to Society 5.0," in *Society 5.0: A People-Centric Super-Smart Society*, 2020, https://doi.org/10.1007/978-981-15-2989-4_3.

pesantren as educational institutions are required to be adaptive to these changes, and technological developments can be used in solving social problems.

This research is based on an assumption that public trust in pesantren education is still very high, this can be seen from the increase in the number of students every year. As an indigenous education of the archipelago, at least some of the advantages of pesantren education are in three patterns: educational aspects, religious aspects, and social aspects. Based on the above background, it is important to study how the form of adaptation and transformation of Al-Hikmah 02 pesantren education in facing the era of society 5.0, disrupting the existence of pesantren in the era of the Industrial Revolution 4.0.

METHOD

This research used qualitative research with a case study approach. Qualitative research prioritizes emic and long processes rather than prioritizing results.[16] This research was conducted at the Pesantren Al-Hikmah 02 in Benda Sirampong Brebes, Central Java. The selection of Al-Hikmah 02 Islamic boarding school as one of the Islamic boarding schools that applies traditional and modern education systems as an effort to answer the challenges of modernization and globalization.[17] By maintaining the values and characteristics of Pesantren education, which is realized by the Masayikh council as part of the Pesantren quality assurance system. In addition, which often gets achievements both on a national and international scale. The selection of Pesantren Al-Hikmah 02 as one of the Islamic boarding schools that often gets international scale achievements.[18] The descriptive approach in this context highlights the presence and role of Pesantren Al-Hikmah 02 in an era of change, emphasizing the need for the Pesantren to be responsive and adaptive to evolving dynamics. Additionally, it includes an analysis of how Pesantren Al-Hikmah 02 can leverage its potential to address the challenges posed by the era of Society 5.0.

The subjects of this study include Masyakih, teachers, pesantren administrators, and Santri in the Pesantren Al-Hikmah 02 environment. A total of 20 participants were selected using the snowball technique to ensure proper representation of each group. In this study, the snowball sampling technique used to select informants. The snowball technique is chosen because it allows for the identification of participants who are well-informed and can provide in-depth insights into the dynamics within Pesantren Al-Hikmah 02, especially when the population is not easily accessible or well-defined. The object of this research is related to the transformation of Pesantren Al-Hikmah 02 education both from the aspects of the curriculum, educators, students in this aspect, infrastructure facilities, and various supporting activities.

Data collection is done by triangulating data with techniques[19]; a) interviews, with primary sources, b) Field observations were carried out at the Pesantren Al-Hikmah 02 in a live-in manner, c) document study or utilization of structured data, collected from various kinds of

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[16] Humaidi, *Metodologi Penelitian Kualitatif* (Malang: UMM, 2010).

[17] Khizanaturrohmah, "Manajemen Pembelajaran Pondok Pesantren (Studi Di Pondok Pesantren Puteri Al-Hikmah 2 Benda Sirampog Brebes)" (UIN Walisongo Semarang, 2023).

[18] Wasdiun, "Santri Al Hikmah 2 Benda Sirampog Wakili Indonesia Di ISADC Qatar 2023," NU Online, 2023, https://www.nu.or.id/daerah/santri-al-hikmah-2-benda-sirampog-wakili-indonesia-di-isadc-qatar-2023-HuQjp.

[19] Deni Darmawan, *Metode Penelitian Kuantitatif* (Bandung: Remaja Rosdakarya, 2014).

documents, profiles, and data of the pesantren and utilizing social media sources owned by the boarding school such as Instagram, Facebook, and YouTube.

The analysis technique used refers to Qualitative research with a case study approach suitable data analysis techniques follow Miles Huberman:1. Data Reduction: researchers reduce every interview, documentation, and all data obtained such as relevant data only with the theme of this research. 2. Data presentation: the data that has been obtained is presented in a straightforward and relevant narrative form 3. Conclusion drawing and verification. With additional SWOT (Strengths, Weaknesses, Opportunities, and Threats) steps for strategic management. The collected data were analyzed using SWOT analysis to design appropriate and effective strategies for pesantren education in facing the changing era of society 5.0 based on the real conditions of both internal and external factors. SWOT analysis emphasizes the pre-existing management of pesantren education in the era of the industrial revolution 4.0, then determines strategies to answer the needs of the community at large in the face of changes in the era of Muslim society 5.0.[20]

RESULTS AND DISCUSSION

Geographically, Pondok Pesantren Al-Hikmah 2 Benda is located in the south of the city of Brebes, precisely in the village of Benda, Sirampog District, Brebes Regency. Approximately 7 km from the city of Bumiayu to the north. Sirampog sub-district is one of the sub-districts located adjacent to the slopes of Mount Slamet. This geographical condition gives Sirampog sub-district have cool air and is very conducive to teaching and learning activities.

Pesantren Al-Hikmah 2 Benda Sirampog also has a clear vision and mission. The vision and mission are as follows: "*Deepening religious knowledge (Tafaqquh fi Ad-Din), religious commitment and berakhlaq (Tadayun wa at-Takhalluq) and independence*". This vision is supported by the study of classical Islamic references, they also explore contemporary study references available in the pesantren library. The study system uses two methods, namely *Bandongan* and *Sorogan*, which are sharpened by *Muzakarah*, *Bahtsul Masail*, and digital literacy, language strengthening is a distinctive characteristic of Pesantren Al-Hikmah 02 Benda.

Pondok Pesantren Al-Hikmah 2 Benda also provides skills to all its students. Among the skills provided include fashion, fisheries, gas and electric welding, computer operators, intensive English, automotive, pharmacy, and tahfiz al-Qur'an. The application and support of this skills program is by holding Field Work Practices (PKL) in government agencies, companies, and industries.

Results
Pesantren Caregivers' Views on the Transformation of Pesantren Education

Seeing the phenomenon of progress that occurs today, the transformation of the education system in pesantren is a must so that pesantren are not left behind. Pesantren Al-Hikmah 02 Benda Brebes takes an adaptive-selective path towards existing advances. The existing advances need to be addressed following the rules that have been adhered to by the

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[20] Richard W Puyt, Finn Birger Lie, and Celeste P M Wilderom, "The Origins of SWOT Analysis," *Long Range Planning* 56, no. 3 (2023): 102304, https://doi.org/10.1016/j.lrp.2023.102304.

pesantren.: *Al-muhafadzatu 'ala alqadimi alshalihi wa al akhdu bi al jadidi al ashlah.* This rule is a strong legality that can be used as a reference or basis for various reforms that occur in pesantren, as long as the reform is not separated from the frame of *al ashlah* (better) because the reform is a consequence of the progress of the modern world.

In the interview, the pesantren caregiver stated:

"The tradition of pesantren is adaptive to change, the current pesantren not only produces students who can recite the Koran (read the yellow book), but also teaches independence to students with economic independence. So Pesantren Al-Hikmah 02 equips its students with vocational education. Currently, the era is digital, so digital literacy is also taught to students. Various educational innovations at Pesantren Al-Hikmah 02 to keep up with the times and the needs of the community without eliminating the identity of the pesantren."

According to the caregiver of Pesantren Al-Hikmah 2 Benda Brebes, transformation is a necessity that must be responded to by the pesantren properly. The transformation of the education system in pesantren is also *sunnatun thabi'iyyatun likulli hayaatin* (all living things experience renewal). Transformation in the context of pesantren is interpreted as responsive to changes and demands of the times, future-looking, and always prioritizing the principles of effectiveness and efficiency.

Pesantren Al-Hikmah 02 in responding to the progress of the times that occurred was by accepting the renewal in the best possible way and of course also not only accepting but also followed by self-improvement in following the renewal both with renewal of management, learning methods, and goals. By establishing formal classical learning programs, and skill programs. This is evident through the implementation of a vocational curriculum that equips students with practical knowledge and hands-on skills.

Furthermore, the pesantren has received accreditation and licensing for its vocational training programs, which include English language courses, computer skills, fashion design, fisheries, and welding. These skill programs are designed not only to provide students with technical expertise but also to enhance their employability, enabling them to contribute meaningfully to the local economy and society. By balancing traditional Islamic education with modern vocational training, Pesantren Al-Hikmah 02 is preparing its students to thrive in the rapidly changing world while preserving their cultural and religious values.

Figure 1. Islamic Education with Modern Vocational Training
Source: Private Documentation

Pesantren responded to the reform by accepting and improving themselves. Because the purpose of parents sending their children to pesantren is not only to seek knowledge but also to get skills and certificates. The existence of public schools opened at the Al-Hikmah 2 Benda Brebes boarding school is a form of transformation of the education system. But it does not leave the old or traditional education system through the study of *Kitab Kuning* books with *Bandongan* and *Sorogan* methods that provide scientific Sanad, *Tirakat* education as a characteristic of Santri, simplicity, and the formation of morals, all of this must be preserved despite the changing times, as the identity of pesantren education that produces knowledgeable and moral Santri.
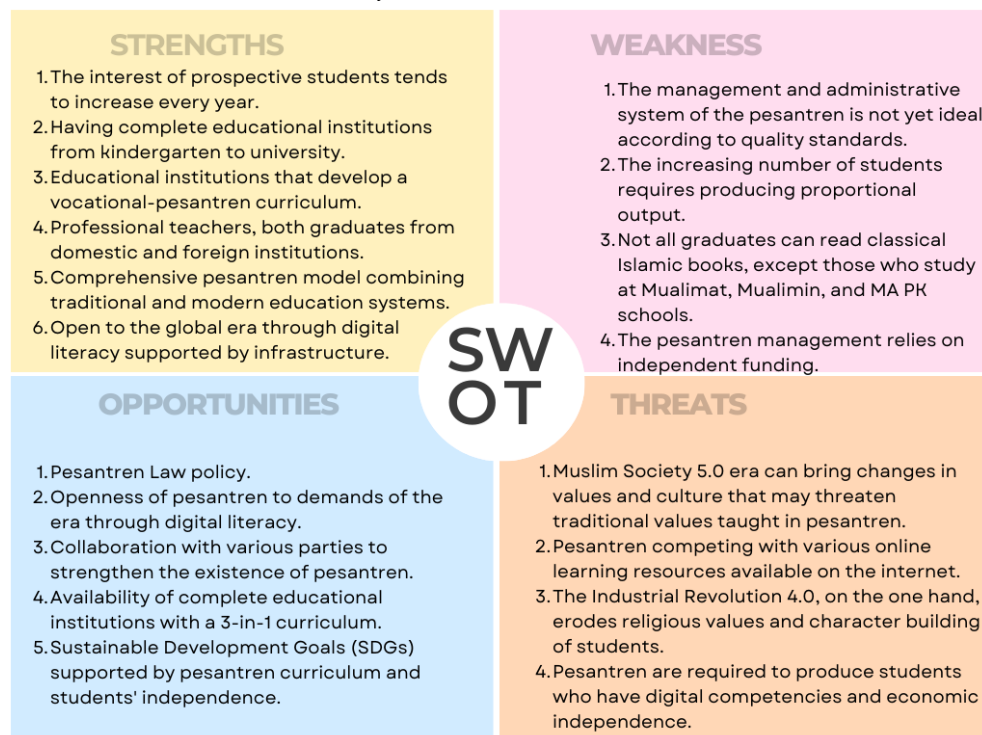
In the context of the era of society 5.0, where digital technology increasingly dominates various aspects of life, the transformation of education in pesantren is becoming increasingly relevant. Where digital technology-based education can increase the effectiveness of learning and the independence of Santri to be more adaptive to change. Pesantren that adapt with a selective-adaptive approach show the flexibility needed to remain relevant in the modern era.

SWOT Analysis of Pondok Pesantren Al Hikmah 02 in Facing the Era of Society 5.0
In the context of this research, SWOT analysis is used to make a clear mission statement of how pesantren can face the challenges of Muslim society 5.0. which is based on the existing conditions in the era of the Industrial Revolution 4.0. Determination of pesantren strategy is inseparable from the existence of pesantren with all its strengths and weaknesses as internal factors and how to see opportunities and threats as external factors which are then formulated to formulate pesantren strategies in facing the challenges of the era of industrial revolution 4.0.[21] SWOT analysis of Pondok Pesantren Al-Hikmah 02 which is described in the table as follows:

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[21] Christine Namugenyi, Shastri L. Nimmagadda, and Torsten Reiners, "Design of a SWOT Analysis Model and Its Evaluation in Diverse Digital Business Ecosystem Contexts," in *Procedia Computer Science* (Elsevier Inc., 2019), 1145–54, https://doi.org/10.1016/j.procs.2019.09.283.

Tabel 1. SWOT analysis of Pondok Pesantren Al-Hikmah 02

STRENGTHS
1. The interest of prospective students tends to increase every year.
2. Having complete educational institutions from kindergarten to university.
3. Educational institutions that develop a vocational-pesantren curriculum.
4. Professional teachers, both graduates from domestic and foreign institutions.
5. Comprehensive pesantren model combining traditional and modern education systems.
6. Open to the global era through digital literacy supported by infrastructure.

WEAKNESS
1. The management and administrative system of the pesantren is not yet ideal according to quality standards.
2. The increasing number of students requires producing proportional output.
3. Not all graduates can read classical Islamic books, except those who study at Mualimat, Mualimin, and MA PK schools.
4. The pesantren management relies on independent funding.

OPPORTUNITIES
1. Pesantren Law policy.
2. Openness of pesantren to demands of the era through digital literacy.
3. Collaboration with various parties to strengthen the existence of pesantren.
4. Availability of complete educational institutions with a 3-in-1 curriculum.
5. Sustainable Development Goals (SDGs) supported by pesantren curriculum and students' independence.

THREATS
1. Muslim Society 5.0 era can bring changes in values and culture that may threaten traditional values taught in pesantren.
2. Pesantren competing with various online learning resources available on the internet.
3. The Industrial Revolution 4.0, on the one hand, erodes religious values and character building of students.
4. Pesantren are required to produce students who have digital competencies and economic independence.

Based on the SWOT analysis that has been carried out, it shows that pesantren education is a great strength in maintaining and teaching Islamic values that remain relevant and sought after by Muslim communities in the era of Muslim Society 5.0. Pesantren in the Indonesian frame is social and national education, meaning that pesantren not only instills Islamic knowledge but also instills the national spirit of culture, society, and economy.

The SWOT analysis conducted is reinforced by an interview with the Dewan Masayikh which revealed that the presence of the Dewan Masayikh at Pondok Pesantren Al Hikmah 02 plays a crucial role in ensuring the quality of the pesantren's education, especially in the digital age.

In the interview, the pesantren caregiver stated:

"Pesantren maintains the tradition of classical Islamic scholarship, such as the study of *kitab kuning* (traditional Islamic texts), while also focusing on intellectual development. At the same time, the pesantren upholds the instillation of moral and spiritual values and continuously adapts to changes without compromising its traditional values."

Pesantren Transformation through AGIL System

By applying the AGIL principle, the transformation of pesantren education can be seen as an effort to maintain the sustainability of Islamic religious values, while adapting to the challenges and needs of the times, especially in the era of Muslim Society 5.0, which emphasizes digitalization, artificial intelligence, and community involvement in social and economic development. The transformation of pesantren education affects the durability and continuity of the pesantren education system as initiated by Parsons that the transformation challenge

must have four systems called AGIL (Adaptation, Goal Attainment, Integration, Latency).[22] Referring to the pesantren transformation management theory, it is necessary to do:

Adaptation

Adaptation can be defined as adjusting to the environment and adjusting the environment to the needs. The adaptation system carried out in pesantren is very clear when looking at the function of pesantren which positions them as religious (Islamic) educational institutions that remain the center of *tafaqquh fi al-dîn* which functions to maintain, develop, and utilize Islamic sciences.[23]

In accordance with the needs of the era of the Industrial Revolution 4.0 which prepares Santri who have global competitiveness, the form of adaptation of pesantren transformation in the era of the Industrial Revolution 4.0 is through digital literacy.[24] Digital literacy in this context is defined as the ability to use technology and information from digital devices effectively and efficiently in various contexts such as academic, career, and daily life. In other words, digital literacy is the ability to use technology and how to retrieve, use, and analyze information provided by digital media together.[25]

The pesantren's openness to digital advancements is demonstrated through various activities, one of which is digital-based seminars featuring a range of guest speakers. The key point emphasized is that the digital era should not be interpreted as the need for students to use smartphones while at the pesantren.

Figure 2. Seminars Digital literacy
Source:Instagram alhikmah02

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[22] Sulkhi Sulkhi, *Mengintip Madrasah mBeling*, ed. Mutammam Syafi'i (Bandung: Harfa Creative, 2022).

[23] M. Falikul Isbah, "Pesantren in the Changing Indonesian Context: History and Current Developments," *Qudus International Journal of Islamic Studies* 8, no. 1 (2020): 65–106, https://doi.org/10.21043/QIJIS.V8I1.5629.

[24] Muhamad Abdul Manan, "Daya Tahan Dan Eksistensi Pesantren Di Era 4.0," *Jurnal Pendidikan Islam Indonesia* 3, no. 2 (2019): 155–67, https://doi.org/10.35316/jpii.v3i2.135.

[25] Jeremy Riel, Sonya Christian, and Brad Hinson, "Charting Digital Literacy: A Framework for Information Technology and Digital Skills Education in The" (Philadelpoa, 2012), https://doi.org/dx.doi.org/10.2139/ssrn.2781161.

In addition, the transformation is realized through adaptation to the digital era by creating a channel for Islamic studies, which is broadcast via live streaming so that the information can be accessed by a wider audience, not limited to just Al-Hikmah 02 Benda students. The pesantren plays an active role and participates fully in developing digital da'wah. Wich Youtube https://www.youtube.com/@alhikmahdua8009/featured.

Adaptation is also carried out in modifying the competency-based adaptive pesantren curriculum, combining Islamic studies through a typical pesantren learning model with the education curriculum with the term 3 in 1 (three curricula in one package, namely the Ministry of Religion, Pesantren and Skills / Vocational curriculum). Modification of the pesantren curriculum that is strengthened in the school education curriculum to adjust market demands (stakeholders) that Santri must have competencies or skills modification of the pesantren curriculum accommodates Santri into three learning abilities to: 1) mastering curricular learning, 2) understanding the *Kitab Kuning* books with stressing on religious experience, 3) developing one of the skills (life skill education).

Goal attainment

The pesantren education system is inseparable from the orientation of Islamic propagation. The purpose of pesantren as stated by Azra is inseparable from the three important roles of pesantren, namely, 1) as a center for the transmission of religious knowledge, 2) as a guardian of Islamic tradition, 3) as a center for the production of ulama.[26]

The objectives of the Al-Hikmah 02 Islamic boarding school as stated in its vision, deepening religious knowledge (*Tafaqquh fi Ad-Din*), religious and moral commitment *(Tadayun wa at-Takhalluq)*, and independence. The transformation carried out in achieving these goals is the requirement for graduate competence in the religious field including increasing the ability to memorize 5 Juz of the Qur'an as a condition of graduation and specifically for Madrasah Aliyah Program Keagamaan (MAK) students at least 8 Juz. For Mualimin and Mualimat students completing Nadzam Alfian, junior high school and MTs students completing Nadzam Aqidatul Awam.

The transformation of pesantren in realizing the independence of Santri, with vocational education, Santri are equipped with both Arabic and English language skills, Clothing, Fisheries, Welding, and Computers as evidenced by the Outing Program certificate. This is to print Santri as human resources who have competence so that they can be independent when they enter the community.

Integration

Integration in this case is realized by structured management through institutional management in the pesantren. Pondok Pesantren Al-Hikmah 02 is committed to providing the best possible service. The structural pattern of the organization is directed at improving pesantren management through a regular mindset (administrative thinking), regular

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[26] Azyumardi Azra, "Genealogy of Indonesian Islamic Education: Roles in the Modernization of Muslim Society," *Heritage of Nusantara: International Journal of Religious Literature and Heritage* 4, no. 1 (2015), https://doi.org/10.31291/hn.v4i1.63.

implementation of activities (administrative behavior), and preparation for activity tasks properly (administrative attitude).[27]

An integrated pesantren education system to control the quality of pesantren education that is able to act as an educational process (an educational process that emphasizes teaching and learning activities), a socialization process (a social process), and a place for transformation (a process of changing behavior towards a better or more advanced direction).[28] Efforts to improve the quality of pesantren are carried out by developing various collaborations with various agencies, companies, and industries. In its implementation in the form of Field Work Practice programs, Outing Programs, Teaching Programs, as well as cooperation with foreign educational institutions such as Malaysia, Thailand, and Turkey.[29]

Latency

Pattern maintenance leads to the rule of *"muhafadzoh ala qadimi salih",* namely preserving old traditions. The transformation of Pesantren Al-Hikmah 02 Benda still upholds various kinds of pesantren traditions that are indeed good such as *Sorogan* recitation, *Bendongan*, etc. It is still preserved as one of the characteristics of pesantren.[30] Another characteristic of the pesantren education pattern is the relationship between Kiai and Santri not only as students and teachers, but more like children and parents. This is a form of egalitarian education that emphasizes humanism.[31]

Discussion
Adaptive and Transformation Forms of Pondok Pesantren Al Hikmah 02 Benda in the Era of Industrial Revolution 4.0

The era of the Industrial Revolution 4.0 is characterized by rapid technological development. The transformation of pesantren education is related to improving the quality of education and can answer the challenges of the times and be able to provide something that is needed by the community.[32] In this context, pesantren education faces both challenges and opportunities to redefine its role in society. By embracing transformation, pesantren can elevate the quality of education to remain relevant and meet the demands of modern times.[33]

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[27] Nurul Yakin, "Studi Kasus Pola Manajemen Pondok Pesantren Al-Raisiyah Di Kota Mataram," *Ulumuna* 18, no. 1 (2017): 199–220, https://doi.org/10.20414/ujis.v18i1.159.

[28] Dewi Anggraeni, Andy Hadiyanto, and Ahmad Hakam, "Multicultural Islamic Religious Education Based on Local Wisdom: The Analysis of 'SILAS' Values in Sundanese Culture," *Indonesian Journal of Islamic Education Studies (IJIES)* 6, no. 1 (2023): 93–108, https://doi.org/10.33367/ijies.v6i1.3649.

[29] Sulkhi, *Mengintip Madrasah mBeling.*

[30] Rosidin Rosidin et al., " The Development History of the Yellow Book (Kitab Kuning) as Islamic Textbooks in Indonesia Based on the Philology Perspective ," *Proceedings of the International Symposium on Religious Literature and Heritage (ISLAGE 2021)* 644, no. Islage 2021 (2022): 233–42, https://doi.org/10.2991/assehr.k.220206.030.

[31] Dewi Anggraeni, Fitrotul Muzayyanah, and Gumilar Irfanullah, "Pola Kepemimpinan Nyai Masriyah Amva Terhadap Resiliensi Pesantren Di Era Pendemi Covid -19," *Hayula: Indonesian Journal of Multidisciplinary Islamic Studies* 7, no. 1 (2023), https://doi.org/10.21009/hayula.007.01.07.

[32] Savitri, *Revolusi Industri 4.0 Mengubah Tantangan Menjadi Peluang Di Era Disrupsi 4.0. Yogyakarta* (Yogyakarta: Genesis, 2019).

[33] Teguh Budiharso, Syamsul Bakri, and Sujito, "Transformation of Education System of the Pesantren in Indonesia from the Dutch Colony to Democratic Era," *Journal of Social Studies Education Research* 14, no. 4 (2023): 179–206.

Based on the research results, Pesantren Al-Hikmah 02 has adapted to the changing times without losing its traditional values while implementing better innovations.[34] One of the innovations introduced is the integration of vocational education and digital literacy to enhance the competitiveness of pesantren graduates. This is in line with the finding that the integration of vocational education and digital literacy can increase the competitiveness of pesantren graduates in the job market. For instance, at Pesantren Al-Hikmah 02, students who have received training in digital marketing and computer skills have reported higher employment rates and more job opportunities compared to those without such skills. Data from the pesantren's alumni network also indicates that graduates with vocational certifications in areas like graphic design and computer programming are more likely to secure well-paying jobs.[35]

Pesantren, as a cornerstone of Islamic education, have demonstrated remarkable adaptability in responding to the dynamic demands of modern society while preserving their traditional values.[36] The modification of the pesantren curriculum is designed to prepare santri, with three essential competencies. *First,* it emphasizes mastering learning, ensuring that students meet the academic standards required providing santri with recognized qualifications that enhance their competitiveness in various fields. *Second,* the curriculum retains a strong focus on understanding the *Kitab Kuning* with an emphasis on religious experience.[37] By delving deeply into these texts, pesantren preserve their role as centers of Islamic scholarship and leadership.[38] *Third*, the inclusion of life skills education represents a forward-looking innovation. This aspect of the curriculum equips santri with practical competencies such as entrepreneurship, digital literacy, and vocational expertise. These skills are essential for navigating the complexities of the modern world and meeting the demands of a technology-driven economy.

Through the pesantren curriculum that is integrated with the school education curriculum, Al-Hikmah 02 Islamic boarding school is the rule model of pesantren education under the Ministry of Religious Affairs. All activities in the learning process are carried out to provide 21st-century competencies to students by having 4C skills (Creativity, Critical Thinking, Communication, Collaboration).[39]

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[34] Murharyana Murharyana et al., "Behavior Change of Darul Falah Senior High School Students After Attending Tabligh Akbar," *Dirasah International Journal of Islamic Studies* 1, no. 2 (October 17, 2023): 68–77, https://doi.org/10.59373/drs.v1i2.17; Fachruddin Azmi, Yusuf Hadijaya, and Ahmad Syah, "Management System of Sunnah Islamic Boarding School in Shaping Character of The Students," *Nidhomul Haq : Jurnal Manajemen Pendidikan Islam* 7, no. 1 (March 21, 2022): 39–52, https://doi.org/10.31538/ndh.v7i1.1955; Difa Ilwa Dilia, Rony Rony, and Anis Trianawati, "Pengaruh Ta'zir Terhadap Akhlak Santri Putri Pondok Pesantren," *At-Tadzkir: Islamic Education Journal* 1, no. 1 (September 8, 2022): 1–12.

[35] Ahmad Bustomi and Isti Fatonah, "Adaptasi Pendidikan Pesantren : Memperkuat Hard Skill Di Pondok Pesantren Al Hikmah 02 Brebes," *Tarbawiyah:Jurnal Ilmiah Pendidikan* 08 (2024): 1–19, https://doi.org/10.32332/tarbawiyah.v8i2.9612.

[36] Himawan Bayu Patriadi, Mohd. Zaini Abu Bakar, and Zahri Hamat, "Human Security in Local Wisdom Perspective: Pesantren and Its Responsibility to Protect People," *Procedia Environmental Sciences* 28 (2015): 100–105, https://doi.org/10.1016/j.proenv.2015.07.015.

[37] Dewi Anggraeni and Karnubi Karnubi, "Religious Literacy in Learning Fiqh Based on the Sorogan Method," *EduMasa: Journal of Islamic Education* 1, no. 1 (2023).

[38] Muhammad Turhan Yani et al., "Advancing the Discourse of Muslim Politics in Indonesia: A Study on Political Orientation of Kiai as Religious Elites in Nahdlatul Ulama," *Heliyon* 8, no. 12 (2022): e12218, https://doi.org/10.1016/j.heliyon.2022.e12218.

[39] Zulkifli Lubis and Dewi Anggraeni, "Paradigma Pendidikan Agama Islam Di Era Globalisasi Menuju Pendidik Profesional," *Jurnal Online Studi Al-Qur'an*, 2019, https://doi.org/10.21009/jsq.015.1.07.

Developments in digital technology with Artificial Intelligence (AI) that turns data into information, making it easy for people to obtain it.[40] Efforts to open space for dialog with changing times by adopting new values that are more relevant and bring *maslahat* (benefit) are also more perfect in maintaining the existence of pesantren in line with the *fiqhiyah* rule, *"Keeping firm and preserving old values that are still relevant and taking new values that are much more relevant".*

Transformation at Al Hikmah 02 Benda is not merely about updating its academic offerings, but also about nurturing a culture of critical thinking, creativity, and social responsibility. The pesantren is reshaping its role in the community by fostering an educational model that balances religious teachings with practical skills, such as entrepreneurship and technological proficiency, which are essential in today's interconnected world.

Through these adaptive and transformative efforts, Pondok Pesantren Al Hikmah 02 Benda not only prepares its students to succeed in the era of the Industrial Revolution 4.0 but also ensures that they remain grounded in the spiritual and moral values that have always been the foundation of pesantren education. These initiatives reflect a forward-thinking approach to education, ensuring that the pesantren remains relevant and impactful in an ever-evolving world.

From the explanation above, it can be described more simply the various forms of transformation of Pondok Pesantren Al-Hikmah 02 Benda as the following table:

Table 2. Forms of Transformation of Pesantren Al-Hikmah 02 Benda in the Era of the Industrial Revolution 4.0

No	Forms of Transformation
1	Digital Literacy Education for Santri
2	Competency-Based Pesantren Curriculum (3 in 1)
3	Softskill Strengthening through Vocational Education
4	Digital Da'wah through El Waha and Malhikdua Channels
5	Strengthening the religious aspects of santri as a graduation requirement through Imtihan Ma'had
6	Pesantren Quality Control Management System
7	Expansion of International Teaching Program cooperation
8	Building an Egalitarian Relationship Between Santri and Caregivers
9	Strengthening Tradition through Cultural Performances
10	Field Work Practices, Outing Programs with various Agencies

According to Dofier, Pesantren as an Indigenous educational institution of the archipelago is not only for certain circles as educational institutions in general, pesantren does not recognize boundaries, does not recognize circles, does not know the people, does not know the people.[41] Pesantren transformation forms its civilization by entering the community, entering villages, and how pesantren can respond to world challenges through understanding

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[40] Ed Burns, Nicole Laskowski, and Linda Tucci, "What Is Artificial Intelligence (AI)? - AI Definition and How It Works," *Enterprise AI* (USA: TechTarget, 2023).

[41] Zamakhsyari Dhofier, *Tradisi Pesantren: Studi Tentang Pandangan Hidup Kyai* (Jakarta: LP3ES, 2000).

digital literacy, the use of various information media accompanied by morals, and critical thinking so that it is not easy to be attacked by hoaxes.[42]

Pesantren as an educational institution's Pesantren has long been the center of Islamic education and have a strong heritage in teaching Islamic religion and culture. In its development, pesantren have a wide and strong community network among Muslims, which can be used to share knowledge and support the development of pesantren. As a religious education institution, pesantren uses a holistic approach that includes religious education, morals, and spirituality, following the needs of Muslim Society 5.0 who want to integrate Islamic values into their daily lives.

Pesantren Al Hikmah 02 Benda in Facing The Era of Muslim Society 5.0

The concept of Society 5.0 is much different from the concept of Industry 4.0, where the concept of Society 5.0 emphasizes humans, and how these humans can anticipate global trends due to the emergence of Industry 4.0.[43] With almost the same characteristics, between the industrial era 4.0 and the era of society 5.0, new thinking in the world of education including in pesantren needs to be prepared.

The component of preparing Society 5.0 in the world of pesantren education is not only equipping students to understand theory but also how to practice and develop this understanding in various lines of life so that pesantren can produce creative and innovative students. One important step that we can take is to prepare the skills, and competencies of Santri who are able to adapt to various changes in the era without eliminating the values of Islamic teachings. By understanding this SWOT, pesantren can identify strategic steps to overcome weaknesses and threats and utilize strengths and opportunities in facing the era of Muslim Society 5.0.

Referring to strategic management, which is a comprehensive management, pays attention to the environment because it wants to place organizational goals in a competitive environment. Siagian revealed various strategies that can be used in gaining a competitive advantage, including how to prepare Santri to face the Era of Society 5.0.[44] Innovation strategies are used to gain a competitive advantage, which means making new meanings or changes that are different from what has existed before. Provide learning with flexibility and a greater purpose.

Based on the research findings, Pondok Pesantren Al-Hikmah 02 has successfully implemented and developed the AGIL system (Adaptation, Goal Attainment, Integration, Latency) in transforming pesantren education to face the Muslim Society 5.0 era. The implementation of the AGIL system is reflected in various aspects, including the Three in One Curriculum an integrated competency-based curriculum that encompasses religious education, formal education, and vocational education.

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[42] Hatim Gazali, Dewi Anggraeni, and Mariam Eit Ahmed, "Salafi-Jihadist Movements and Ideology in Educational Institutions: Exploring the Nexus with Religious Moderation," *Edukasia Islamika : Jurnal Pendidikan Agama Islam* 8, no. 1 (2023), https://doi.org/10.28918/jei.v8i1.7658.

[43] Limya Oktaviani, "Society 5.0: Masyarakat Super Cerdas, Definisi Dan Penerapannya," dicoding, 2023, https://www.dicoding.com/blog/society-5-0-masyarakat-super-cerdas-definisi-dan-penerapannya/#:~:text=Society 5.0 adalah sebuah konsep,antara dunia maya dan fisik.

[44] Sondang P. Siagian, *Manajemen Stratejik* (Jakarta: Bumi Aksara, 1998).

The innovation strategy developed by Pesantren Al-Hikmah 02 is the Three in One curriculum innovation, which is a curriculum that modifies the Ministry of Religion curriculum, pesantren curriculum, and vocational curriculum. This curriculum development is an anticipatory step in keeping pace with the times. This curriculum is the rule model in the development of pesantren education so that students not only have religious knowledge but also have skills. All students can choose and develop the skills that are honed in each school. In other words, the educational institutions in Pesantren Al-Hikmah 02 cannot be separated from the pesantren curriculum.

Goal Attainment is realized through the quality of graduates who possess global competitiveness, not only in their understanding of religion (*tafaquh fi ddin*) reflected in their commitment to religious practices and morals (*Tadayun wa at-Takhalluq*), but also in the self-reliance instilled in them. Data show that alumni with strong vocational skills and religious education have a higher success rate in both their careers and further studies.[45] This emphasis on religious commitment is interwoven with a strong focus on personal development, particularly in fostering self-reliance. Self-reliance here is understood as the ability of graduates to stand on their own feet, manage their lives, and contribute meaningfully to society, while staying grounded in the values of Islam.[46] Through the integration of both religious education and practical skills, pesantren graduates are prepared to face challenges and opportunities in various fields, equipped with the resilience and self-sufficiency required to thrive in a globalized world.

The integrated pesantren education system aims to enhance the quality of pesantren education by creating a multifaceted approach that encompasses teaching, socialization, and behavioral transformation.[47] In this model, pesantren are not only places for academic learning but also serve as social institutions that influence students' personal growth and character development, fostering positive changes towards advancement and betterment. This comprehensive approach not only strengthens the educational quality but also plays a pivotal role in shaping students social and moral development, preparing them for both local and global challenges.[48]

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[45] Ali Muhdlorul Huda and Mauhibur Rokhman, "The Strategy of the Principal in Improving the Quality of Institutional Education," *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah* 4, no. 2 (November 5, 2021): 72–80, https://doi.org/10.54069/attadrib.v4i2.142; Achmad Nadif, Juli Amaliya Nusucha, and Ainur Rofiq, "The Concept of Soft Skills Teacher Islamic Education Studies The Book 'Iẓat Al-Nasyi'īn By Sheikh Musthafa Al Ghalayani," *Dirasah International Journal of Islamic Studies* 1, no. 2 (October 29, 2023): 102–10, https://doi.org/10.59373/drs.v1i2.20.

[46] Taufik Taufik and Ernawati Ernawati, "Encouraging the Rise of Young Entrepreneurs: Promoting Entrepreneurial Intention through Storytelling," *The Open Psychology Journal* 14 (2021): 213–19, https://doi.org/10.2174/1874350102114010213.

[47] AM Saifullah Aldeia et al., "Modernisasi Manajemen Pesantren Menyongsong Era Society 5.0," *EDUKASI: Jurnal Penelitian Pendidikan Agama Dan Keagamaan* 21, no. 1 SE-Articles (April 30, 2023): 17–30, https://doi.org/10.32729/edukasi.v21i1.1287.

[48] Muhamad Arif et al., "Strengthening The Sense of Patriotism in Madrasah Ibtidaiyah, Indonesia Based on The Islamic Boarding School System," *Tafkir: Interdisciplinary Journal of Islamic Education* 4, no. 1 (January 19, 2023): 1–21, https://doi.org/10.31538/tijie.v4i1.226; Nisa Fitriani, Syamsul Anam, and Asep Maulana, "Building Literacy of Early Age Students' Language; Teacher Managerial Competence and Legal-Rational Authority of Boarding School Leaders," *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 5, no. 1 (2024): 41–50, https://doi.org/10.31538/munaddhomah.v5i1.707.

Despite the transformation of the pesantren to adapt to contemporary challenges, the Pesantren remains deeply rooted in preserving valuable traditions. The preservation of these traditions highlights the pesantren's commitment to upholding cultural and educational legacies while adapting to modern developments. Another characteristic of the pesantren education pattern at Al-Hikmah 02 Benda is the unique relationship between the Kiai and the Santri. This relationship is not merely academic but familial, where the Kiai assumes the role of a parental figure, guiding students not just in their religious studies but also in their personal and moral development.[49] This model fosters an egalitarian approach to education, emphasizing the values of humanism, compassion, and mutual respect.

In this way, Pesantren Al-Hikmah 02 Benda exemplifies a balance between tradition and innovation, fostering an educational environment that respects the past while preparing students for the future. The strong sense of community, mutual respect, and moral guidance serves as a model of holistic education that integrates intellectual, emotional, and spiritual development.

Following the demands of the era of society 5.0, pesantren focus on producing and molding human resources (HR) who have religious understanding *(tafaquh fi ad din)* as a basic capital in facing the challenges of the era, which has an impact on spiritual erosion so that religious understanding becomes a fortress in facing the era of society 5.0.[50] Adapting to society 5.0, in the world of education, 21st-century life skills are needed better known as 4C (Creativity, Critical Thinking, Communication, Collaboration).[51] To produce these skills that education in pesantren not only provides theoretical content but is also adaptive to changes under 21st-century competencies, pesantren equips their students with digital literacy and fosters soft skills.

In terms of HR (Human Resources) pesantren in facing the era of society 5.0 must have skills in the digital field and creative thinking.[52] The strengthening of *Bahstu Masail* in Pesantren Al-Hikmah 02 as a tradition in the pesantren aims to sharpen students in *istinbat ahkam* to explore the law and implement it in life. This is a typical pesantren education process that teaches its students to think critically by looking at contemporary issues and solving and providing solutions to existing problems.

Innovation strategies for the last 2 years in responding to the challenges of the times, namely the existence of extremism, liberalism, radicalism, and anti-culture, in strengthening and

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[49] Fitrotul Muzayanah and Dewi A Anggraeni, "Leadership of Women Ulama During Pandemic in Pesantren: Study in Kebon Jambu Ciwaringin and Al-Baqaroh Lirboyo," *Potensia* 9, no. 1 (2023).

[50] Dery Jamaludin Basari et al., "Human Resource Management Model in Islamic Boarding School-Based Private Madrasah Tsanawiyah," *Nidhomul Haq : Jurnal Manajemen Pendidikan Islam* 8, no. 1 (February 26, 2023): 14–30, https://doi.org/10.31538/ndh.v8i1.2884; Zuzana Stofkova and Viera Sukalova, "Sustainable Development of Human Resources in Globalization Period," *Sustainability* 12, no. 18 (January 2020): 7681, https://doi.org/10.3390/su12187681.

[51] G. M. Halloran and W. J. Collins, "Physiological Predetermination of the Order of Hardseededness Breakdown in Subterranean Clover (Trifolium Subterraneum L.)," *Annals of Botany* 38, no. 5 (1974): 1039–44, https://doi.org/10.1093/oxfordjournals.aob.a084894.

[52] Ahmad Muktamar B et al., "The Role of Quality Human Resources in Developing Missions of Future Universities in Indonesian Higher Education," *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 4, no. 1 (February 14, 2023): 49–59, https://doi.org/10.31538/munaddhomah.v4i1.342; Danial Danial, Nur Sari Dewi, and Kafrawi Kafrawi, "The Development Model of Human Resources at Islamic Universities in Aceh," *Jurnal Ilmiah Peuradeun* 9, no. 1 (January 30, 2021): 103–22, https://doi.org/10.26811/peuradeun.v9i1.450; Hariadi, Sumardjoko, and Maryadi, "Charismatic Leadership in Improving The Quality of Resources in Islamic Boarding School."

reaffirming the spirit of nationality, Islamic boarding schools have held cultural festival activities to introduce various cultures in the archipelago. Pesantren are not anti-culture, Islamic propagation that comes to Indonesia cannot be separated from the role of culture. Through cultural festival activities, it introduces students to how the traditions in the archipelago are a symbol of the adhesive of this nationality and many traditions whose spirit is in line with the values of Islamic teachings. At this level, the instrumental role of pesantren as a national education tool is very participatory in caring for various kinds of differences and maintaining the unity of Unity and Diversity.

The transformation of pesantren education is needed in facing the demands of the community, namely, the low quality of pesantren education, therefore the transformation is carried out to improve the quality which is the main priority, the second demand is related to the relevance to the needs of the community that occurs in the era of globalization and industrialization today, so pesantren need to equip their students with competencies not only mastery of the *Kitab Kuning* but have skills that are able to compete with the development of the global era.

By implementing and developing the AGIL system, and conducting an evaluation of the pesantren's quality management. Pondok Pesantren Al-Hikmah 02 is not only able to answer the challenges of the Muslim Society 5.0 era but also become an example of how traditional-based educational institutions can transform innovatively without losing the essence of their values. This transformation shows that pesantren have the capacity to become relevant, competitive, and contributing educational institutions for the advancement of global society.

CONCLUSION

The transformation of Pesantren Al-Hikmah 02 Benda, as framed in this research, clearly aligns with contemporary demands by blending tradition and innovation. The transformation system of Pesantren Al-Hikmah 02 Benda refers to the rule of *Al-muhafadzatu 'ala alqadimi alshalihi wa al akhdu bi al jadidi al ashlah*. The transformation of pesantren can be adaptive following the changing times, not separated from the frame of *al ashlah* (better). One unexpected discovery is how adaptive pesantren can be in integrating digital literacy and vocational skills without compromising their Islamic values.

The ability to merge traditional religious teachings with modern competencies has enhanced the institution's relevance in the Muslim Society 5.0 era. This balance between tradition and modernity was more seamlessly achieved than initially anticipated. The transformation of pesantren education in the 4.0 era affects the durability and continuity of the pesantren education system referring to the AGIL system (adaptation, goal attainment, Integration, Latency) which includes; digital literacy education for students, competency-based curriculum, strengthening soft skills through vocational education, digital da'wah through pesantren media channels, *Imtihan Ma'had*, pesantren quality control management system, strengthening pesantren through cooperation on a national and international scale, cultural festival programs. The pesantren strategy in facing the challenges of the era of Muslim society 5.0, referring to the innovation strategy, is carried out through the Three in One curriculum, which is a curriculum that modifies the ministry of religion curriculum, pesantren curriculum,

and vocational curriculum; digital literacy program for Santri; *Bahstu Masail* as a typical pesantren education process that teaches its Santri to think critically; and cultural festivals.

Pesantren have the power to maintain and teach Islamic values that remain relevant and sought after by Muslim communities in the era of Muslim Society 5.0. Pesantren as an educational institution has long been the center of Islamic education and has a strong heritage in teaching Islamic religion and culture. The research was limited to only the transformation program not fully explore variations in gender, age, or socioeconomic backgrounds, which could affect how students experience and respond to the transformations. Future research could focus on expanding the sample size, covering more diverse geographical areas, and incorporating quantitative methods. This would allow for a more comprehensive understanding of the pesantren transformation, ultimately helping to formulate more effective educational policies.

ACKNOWLEDGMENT

REFERENCES

Abidin, Zainal. "Tradisi Pendidikan Pesantren Dalam Mengembangkan Jiwa Kepemimpinan Profetik." *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 5, no. 1 (2024): 84–97. https://doi.org/10.31538/munaddhomah.v5i1.773.

Aisyah, Siti, Munaya Ulil Ilmi, Muhammad Amirudin Rosyid, Eni Wulandari, and Fandi Akhmad. "Kiai Leadership Concept in The Scope of Pesantren Organizational Culture." *Tafkir: Interdisciplinary Journal of Islamic Education* 3, no. 1 (2022): 40–59. https://doi.org/10.31538/tijie.v3i1.106.

Aldeia, AM Saifullah, Nurul Qolbi Izazy, St Aflahah, and Yuyun Libriyanti. "Modernisasi Manajemen Pesantren Menyongsong Era Society 5.0." *EDUKASI: Jurnal Penelitian Pendidikan Agama Dan Keagamaan* 21, no. 1 SE-Articles (April 30, 2023): 17–30. https://doi.org/10.32729/edukasi.v21i1.1287.

Anggraeni, Dewi, Andy Hadiyanto, and Ahmad Hakam. "Multicultural Islamic Religious Education Based on Local Wisdom: The Analysis of 'SILAS' Values in Sundanese Culture." *Indonesian Journal of Islamic Education Studies (IJIES)* 6, no. 1 (2023): 93–108. https://doi.org/10.33367/ijies.v6i1.3649.

Anggraeni, Dewi, and Karnubi Karnubi. "Religious Literacy in Learning Fiqh Based on the Sorogan Method." *EduMasa: Journal of Islamic Education* 1, no. 1 (2023).

Anggraeni, Dewi, Fitrotul Muzayyanah, and Gumilar Irfanullah. "Pola Kepemimpinan Nyai Masriyah Amva Terhadap Resiliensi Pesantren Di Era Pendemi Covid -19." *Hayula: Indonesian Journal of Multidisciplinary Islamic Studies* 7, no. 1 (2023). https://doi.org/10.21009/hayula.007.01.07.

Arif, Muhamad, Mohd Kasturi Nor Abd Aziz, and Yuldashev Azim Abdurakhmonovich. "Trend Strategy to Prevent Bullying in Islamic Boarding Schools (Pesantren)." *Jurnal Ilmiah Peuradeun* 12, no. 2 (May 30, 2024): 639–70. https://doi.org/10.26811/peuradeun.v12i2.1087.

Arif, Muhamad, Mohd Kasturi Nor bin Abd Aziz, Makmur Harun, and Muhammad Anas Ma`arif. "Strengthening The Sense of Patriotism in Madrasah Ibtidaiyah, Indonesia

Based on The Islamic Boarding School System." *Tafkir: Interdisciplinary Journal of Islamic Education* 4, no. 1 (January 19, 2023): 1–21. https://doi.org/10.31538/tijie.v4i1.226.

Ashoka. "Ashoka." https://www.ashoka.org/, 2020. https://www.ashoka.org/en-aaw/about-ashoka.

Asrohah, Hanun. "The Dynamics of Pesantren: Responses toward Modernity and Mechanism in Organizing Transformation." *Journal of Indonesian Islam* 5, no. 1 (2011): 67–90. https://doi.org/10.15642/JIIS.2011.5.1.66-90.

Azmi, Fachruddin, Yusuf Hadijaya, and Ahmad Syah. "Management System of Sunnah Islamic Boarding School in Shaping Character of The Students." *Nidhomul Haq : Jurnal Manajemen Pendidikan Islam* 7, no. 1 (March 21, 2022): 39–52. https://doi.org/10.31538/ndh.v7i1.1955.

Azra, Azyumardi. "Genealogy of Indonesian Islamic Education: Roles in the Modernization of Muslim Society." *Heritage of Nusantara: International Journal of Religious Literature and Heritage* 4, no. 1 (2015). https://doi.org/10.31291/hn.v4i1.63.

B, Ahmad Muktamar, Ni Luh Kardini, Aria Elshifa, Susi Adiawaty, and Tri Cicik Wijayanti. "The Role of Quality Human Resources in Developing Missions of Future Universities in Indonesian Higher Education." *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 4, no. 1 (February 14, 2023): 49–59. https://doi.org/10.31538/munaddhomah.v4i1.342.

Basari, Dery Jamaludin, Saliha Sebgag, Sayid Muhammad Rifqi Noval, Achmad Mudrikah, and Agus Mulyanto. "Human Resource Management Model in Islamic Boarding School-Based Private Madrasah Tsanawiyah." *Nidhomul Haq : Jurnal Manajemen Pendidikan Islam* 8, no. 1 (February 26, 2023): 14–30. https://doi.org/10.31538/ndh.v8i1.2884.

Budiharso, Teguh, Syamsul Bakri, and Sujito. "Transformation of Education System of the Pesantren in Indonesia from the Dutch Colony to Democratic Era." *Journal of Social Studies Education Research* 14, no. 4 (2023): 179–206.

Burns, Ed, Nicole Laskowski, and Linda Tucci. "What Is Artificial Intelligence (AI)? - AI Definition and How It Works." *Enterprise AI*. USA: TechTarget, 2023.

Bustomi, Ahmad, and Isti Fatonah. "Adaptasi Pendidikan Pesantren : Memperkuat Hard Skill Di Pondok Pesantren Al Hikmah 02 Brebes." *Tarbawiyah:Jurnal Ilmiah Pendidikan* 08 (2024): 1–19. https://doi.org/10.32332/tarbawiyah.v8i2.9612.

Danial, Danial, Nur Sari Dewi, and Kafrawi Kafrawi. "The Development Model of Human Resources at Islamic Universities in Aceh." *Jurnal Ilmiah Peuradeun* 9, no. 1 (January 30, 2021): 103–22. https://doi.org/10.26811/peuradeun.v9i1.450.

Darmawan, Deni. *Metode Penelitian Kuantitatif*. Bandung: Remaja Rosdakarya, 2014.

Deguchi, Atsushi. "From Smart City to Society 5.0." In *Society 5.0: A People-Centric Super-Smart Society*, 2020. https://doi.org/10.1007/978-981-15-2989-4_3.

Dhofier, Zamakhsyari. *Tradisi Pesantren: Studi Tentang Pandangan Hidup Kyai*. Jakarta: LP3ES, 2000.

Dilia, Difa Ilwa, Rony Rony, and Anis Trianawati. "Pengaruh Ta'zir Terhadap Akhlak Santri Putri Pondok Pesantren." *At-Tadzkir: Islamic Education Journal* 1, no. 1 (September 8, 2022): 1–12.

Falikul Isbah, M. "Pesantren in the Changing Indonesian Context: History and Current Developments." *Qudus International Journal of Islamic Studies* 8, no. 1 (2020): 65–106. https://doi.org/10.21043/QIJIS.V8I1.5629.

Fitriani, Nisa, Syamsul Anam, and Asep Maulana. "Building Literacy of Early Age Students' Language; Teacher Managerial Competence and Legal-Rational Authority of Boarding School Leaders." *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 5, no. 1 (2024): 41–50. https://doi.org/10.31538/munaddhomah.v5i1.707.

Gazali, Hatim, Dewi Anggraeni, and Mariam Eit Ahmed. "Salafi-Jihadist Movements and Ideology in Educational Institutions: Exploring the Nexus with Religious Moderation." *Edukasia Islamika : Jurnal Pendidikan Agama Islam* 8, no. 1 (2023). https://doi.org/10.28918/jei.v8i1.7658.

Hadi, Syamsul, and Dewi Anggraeni. "Pesantren, Pecinan and Multicultural Education: A Qualitative Case Study of Kauman Pesantren, Lasem, Central Java." *Edukasia Islamika* 6, no. 2 (2021): 273–88. https://doi.org/10.28918/jei.v6i2.4932.

Haidar, M. Ali, Mizanul Hasanah, and Muhammad Anas Ma`arif. "Educational Challenges to Human Resource Development in Islamic Education Institutions." *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 3, no. 4 (2022): 366–77. https://doi.org/10.31538/munaddhomah.v3i4.309.

Halloran, G. M., and W. J. Collins. "Physiological Predetermination of the Order of Hardseededness Breakdown in Subterranean Clover (Trifolium Subterraneum L.)." *Annals of Botany* 38, no. 5 (1974): 1039–44. https://doi.org/10.1093/oxfordjournals.aob.a084894.

Hariadi, Nur, Bambang Sumardjoko, and Maryadi. "Charismatic Leadership in Improving The Quality of Resources in Islamic Boarding School." *Kharisma: Jurnal Administrasi Dan Manajemen Pendidikan* 3, no. 2 (October 14, 2024): 83–96. https://doi.org/10.59373/kharisma.v3i2.42.

Hasanah, Mizanul, and Muhammad Anas Maarif. "Solusi Pendidikan Agama Islam Mengatasi Kenakalan Remaja Pada Keluarga Broken Home." *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah* 4, no. 1 (May 23, 2021): 39–49. https://doi.org/10.54069/attadrib.v4i1.130.

Holroyd, Carin. "Technological Innovation and Building a 'Super Smart' Society: Japan's Vision of Society 5.0." *Journal of Asian Public Policy*, 2022. https://doi.org/10.1080/17516234.2020.1749340.

Huda, Ali Muhdlorul, and Mauhibur Rokhman. "The Strategy of the Principal in Improving the Quality of Institutional Education." *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah* 4, no. 2 (November 5, 2021): 72–80. https://doi.org/10.54069/attadrib.v4i2.142.

Humaidi. *Metodologi Penelitian Kualitatif*. Malang: UMM, 2010.

Humas. "Kemenag Sinergikan PTKI Dan Pesantren, Jawab Masalah Kebangsaan." Kemenag.go.id, 2020. https://kemenag.go.id/nasional/kemenag-sinergikan-ptki-dan-pesantren-jawab-masalah-kebangsaan-8ucm9i.

Khizanaturrohmah. "Manajemen Pembelajaran Pondok Pesantren (Studi Di Pondok Pesantren Puteri Al-Hikmah 2 Benda Sirampog Brebes)." UIN Walisongo Semarang, 2023.

Lubis, Zulkifli, and Dewi Anggraeni. "Paradigma Pendidikan Agama Islam Di Era Globalisasi Menuju Pendidik Profesional." *Jurnal Online Studi Al-Qur'an*, 2019. https://doi.org/10.21009/jsq.015.1.07.

Manan, Muhamad Abdul. "Daya Tahan Dan Eksistensi Pesantren Di Era 4.0." *Jurnal Pendidikan Islam Indonesia* 3, no. 2 (2019): 155–67. https://doi.org/10.35316/jpii.v3i2.135.

Moh Sholahuddin, Agus, and Saeful Anwar. "Transformasi Model Pendidikan Pesantren Berbasis Kitab Kuning Ke Digital Platfrom (Studi Di Pondok Pesantren Al-Ma'ruf Kendal, Dander, Bojonegoro)." *EDUKASIA* 4, no. 1 (2023): 241–48.

Murharyana, Murharyana, Ibnu Imam Al Ayyubi, Rifqi Rohmatulloh, and Irfan Suryana. "Behavior Change of Darul Falah Senior High School Students After Attending Tabligh Akbar." *Dirasah International Journal of Islamic Studies* 1, no. 2 (October 17, 2023): 68–77. https://doi.org/10.59373/drs.v1i2.17.

Muzayanah, Fitrotul, and Dewi A Anggraeni. "Leadership of Women Ulama During Pandemic in Pesantren: Study in Kebon Jambu Ciwaringin and Al-Baqaroh Lirboyo." *Potensia* 9, no. 1 (2023).

Nadif, Achmad, Juli Amaliya Nusucha, and Ainur Rofiq. "The Concept of Soft Skills Teacher Islamic Education Studies The Book 'Iẓat Al-Nasyi'ĭn By Sheikh Musthafa Al Ghalayani." *Dirasah International Journal of Islamic Studies* 1, no. 2 (October 29, 2023): 102–10. https://doi.org/10.59373/drs.v1i2.20.

Namugenyi, Christine, Shastri L. Nimmagadda, and Torsten Reiners. "Design of a SWOT Analysis Model and Its Evaluation in Diverse Digital Business Ecosystem Contexts." In *Procedia Computer Science*, 1145–54. Elsevier Inc., 2019. https://doi.org/10.1016/j.procs.2019.09.283.

Oktaviani, Limya. "Society 5.0: Masyarakat Super Cerdas, Definisi Dan Penerapannya." dicoding, 2023. https://www.dicoding.com/blog/society-5-0-masyarakat-super-cerdas-definisi-dan-penerapannya/#:~:text=Society 5.0 adalah sebuah konsep,antara dunia maya dan fisik.

Patriadi, Himawan Bayu, Mohd. Zaini Abu Bakar, and Zahri Hamat. "Human Security in Local Wisdom Perspective: Pesantren and Its Responsibility to Protect People." *Procedia Environmental Sciences* 28 (2015): 100–105. https://doi.org/10.1016/j.proenv.2015.07.015.

Pontren. "Data Santri." Kemenag.go.id, 2022.

Pontren, Pd. "Data Pesantren Dan Pendidikan Keagamaan Islam." Direktorat Pendidikan Diniyah dan Pondok Pesantren Direktorat Jenderal Pendidikan Islam Kementerian Agama RI., 2023. https://ditpdpontren.kemenag.go.id/.

Pusat, Pemerintah. Undang-undang (UU) Nomor 18 Tahun 2019 tentang Pesantren (2019).

Puyt, Richard W, Finn Birger Lie, and Celeste P M Wilderom. "The Origins of SWOT Analysis." *Long Range Planning* 56, no. 3 (2023): 102304. https://doi.org/10.1016/j.lrp.2023.102304.

Riel, Jeremy, Sonya Christian, and Brad Hinson. "Charting Digital Literacy: A Framework for Information Technology and Digital Skills Education in The." Philadelpoa, 2012. https://doi.org/dx.doi.org/10.2139/ssrn.2781161.

Rosidin, Rosidin, Fenty Andriani, Akhmad Nurul Kawakip, and Moh. Mansur Fauzi. " The Development History of the Yellow Book (Kitab Kuning) as Islamic Textbooks in Indonesia Based on the Philology Perspective ." *Proceedings of the International Symposium on Religious Literature and Heritage (ISLAGE 2021)* 644, no. Islage 2021 (2022): 233–42. https://doi.org/10.2991/assehr.k.220206.030.

Rozaq, Arif Khairur, Basri Basri, and Indah Indah. "Kiai's Leadership in Strengthening Santri's Moderation Attitude in Islamic Boarding Schools." *Nidhomul Haq : Jurnal Manajemen Pendidikan Islam* 7, no. 2 (July 25, 2022): 284–94. https://doi.org/10.31538/ndh.v7i2.2322.

Savitri. *Revolusi Industri 4.0 Mengubah Tantangan Menjadi Peluang Di Era Disrupsi 4.0. Yogyakarta*. Yogyakarta: Genesis, 2019.

Siagian, Sondang P. *Manajemen Stratejik*. Jakarta: Bumi Aksara, 1998.

Stofkova, Zuzana, and Viera Sukalova. "Sustainable Development of Human Resources in Globalization Period." *Sustainability* 12, no. 18 (January 2020): 7681. https://doi.org/10.3390/su12187681.

Sulkhi, Sulkhi. *Mengintip Madrasah mBeling*. Edited by Mutammam Syafi'i. Bandung: Harfa Creative, 2022.

Suzuki, Katsuaki. "Contribution of the Japan Society for Educational Technology toward a Super-Smart Society (Society 5.0)." *Information and Technology in Education and Learning*, 2021. https://doi.org/10.12937/itel.1.1.inv.p001.

Taufik, Taufik, and Ernawati Ernawati. "Encouraging the Rise of Young Entrepreneurs: Promoting Entrepreneurial Intention through Storytelling." *The Open Psychology Journal* 14 (2021): 213–19. https://doi.org/10.2174/1874350102114010213.

Triono, Andit, Annisatul Maghfiroh, Maratus Salimah, and Rohman Huda. "Transformasi Pendidikan Pesantren Di Era Globalisasi: Adaptasi Kurikulum Yang Berwawasan Global." *Al-Tarbawi Al-Haditsah: Jurnal Pendidikan Islam* 7, no. 1 (2022): 60–71. https://doi.org/10.24235/tarbawi.v7i1.10405.

Wasdiun. "Santri Al Hikmah 2 Benda Sirampog Wakili Indonesia Di ISADC Qatar 2023." NU Online, 2023. https://www.nu.or.id/daerah/santri-al-hikmah-2-benda-sirampog-wakili-indonesia-di-isadc-qatar-2023-HuQjp.

Yakin, Nurul. "Studi Kasus Pola Manajemen Pondok Pesantren Al-Raisiyah Di Kota Mataram." *Ulumuna* 18, no. 1 (2017): 199–220. https://doi.org/10.20414/ujis.v18i1.159.

Yani, Muhammad Turhan, Choirul Mahfud, S A P Rangga Sa'adillah, Mohammad Reevany Bustami, Maskuri, and Ahmad Taufiq. "Advancing the Discourse of Muslim Politics in Indonesia: A Study on Political Orientation of Kiai as Religious Elites in Nahdlatul Ulama." *Heliyon* 8, no. 12 (2022): e12218. https://doi.org/10.1016/j.heliyon.2022.e12218.

Yani, Muhammad Turhan, Choirul Mahfud, S.A.P. Rangga Sa'adillah, Mohammad Reevany Bustami, Maskuri, and Ahmad Taufiq. "Advancing the Discourse of Muslim Politics in Indonesia: A Study on Political Orientation of Kiai as Religious Elites in Nahdlatul Ulama." *Heliyon* 8, no. 12 (2022): e12218. https://doi.org/10.1016/j.heliyon.2022.e12218.