

Digital-Based Madrasah Curriculum Evaluation Model Islamic Framework in Facing Society 5.0

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ABSTRACT

Educational transformation in the era of *Society 5.0* requires madrasahs to reconstruct their curriculum evaluation systems in order to adapt to intelligent technology integration while remaining grounded in Islamic values. This study aims to develop a Madrasah Curriculum Evaluation Model based on a *Digital Islamic Framework* as a response to the conceptual gap between conventional curriculum evaluation and the demands of a digital educational ecosystem. The research employed a Systematic Literature Review (SLR) approach guided by PRISMA, examining publications from 2015–2025 related to curriculum evaluation, Islamic education, digital transformation, and *Society 5.0*. The findings reveal that existing evaluation models remain administrative in nature, academically outcome-oriented, and insufficiently integrated with digital literacy and Islamic ethical dimensions. Through thematic synthesis, this study formulates a *Digital Islamic Framework* grounded in three core dimensions: theological-normative foundations, pedagogical-digital integration, and socio-transformative orientation. The model positions technology as a means for public benefit rather than an end in itself and reframes evaluation from mere outcome measurement into a strategic-reflective mechanism ensuring madrasahs' readiness for digital civilization challenges. Theoretically, this study contributes to the advancement of integrative and future-oriented Islamic curriculum evaluation discourse. Practically, it offers a strategic reference for policymakers and madrasah leaders in designing adaptive, value-based evaluation systems.

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1. INTRODUCTION

The transformation of civilization towards the Society 5.0 era marks a fundamental shift in the way humans produce knowledge, manage information, and build social systems based on the integration of smart technology and human values. The concept of Society 5.0, first popularized by the Government of Japan, emphasizes the synergy between artificial intelligence, big data, the Internet of Things, and human-centered innovation to create an inclusive, adaptive, and sustainable society. In the context of education, this transformation does not merely encourage administrative digitization or the use of technological devices, but demands a comprehensive reconstruction of the curriculum, pedagogy, and evaluation system paradigms ((Fukuyama, 2018); (Salgues, 2018)).

For madrasahs as formal Islamic educational institutions, these challenges are multidimensional. Madrasahs are not only required to improve the digital literacy of their students, but also to maintain the integrity of Islamic values as an epistemological and moral foundation. The tension between technological modernization and pedagogical conservatism often results in reactive, rather than strategic, responses. Many madrasahs have adopted digital devices, but have not systematically reformulated their curriculum evaluation systems. As a result, there is a gap between the vision of digital transformation and evaluation practices that are still administrative, normative, and document-based (Azra, 2019; Muhaimin, 2020).

Curriculum evaluation is theoretically understood as a systematic process to assess the relevance, effectiveness, efficiency, and impact of a curriculum on established educational goals (Tyler, 1949; Stufflebeam & Shinkfield, 2007). Classic models such as those developed by Ralph Tyler emphasize the alignment between goals, learning experiences, and outcomes. Meanwhile, the CIPP model pioneered by Daniel Stufflebeam expands evaluation to include context, input, process, and product. Although these models have made significant contributions to educational evaluation theory, recent critiques suggest that these approaches do not fully accommodate the complexity of the digital ecosystem and technology-based social dynamics (Redecker, 2017; Voogt & Roblin, 2012).

In the context of Islamic education, the discourse on curriculum evaluation tends to focus on the compatibility between teaching materials and normative religious values, as well as on the cognitive and affective achievements of students (Hefner, 2016; Tan, 2018). Previous studies on madrasahs show that curriculum reform is often directed at the integration of science and religion, but has not been followed by innovations in evaluation systems that are adaptive to digital transformation (Basri, 2021; Noor, 2018). Evaluation is still understood as an instrument for measuring learning outcomes, rather than as a reflective and strategic mechanism to ensure institutional readiness in the face of disruptive technological change.

Studies on the digitization of Islamic education in Indonesia show that most research focuses on the implementation of e-learning, the use of Learning Management Systems (LMS), or teacher digital literacy (Huda et al., 2022; Rahman, 2020). However, research that specifically examines madrasah curriculum evaluation models within the framework of digital transformation is still limited. Even when evaluation is discussed, the approach tends to be technical-operational and does not touch on the philosophical dimensions of technology integration and Islamic values conceptually.

On the other hand, global literature on education in the digital age emphasizes the importance of 21st-century competencies, including critical thinking, creativity, collaboration, and digital literacy (OECD, 2019; Trilling & Fadel, 2009). Frameworks such as DigCompEdu, developed by the European Commission, emphasize the need for teachers' digital competencies as a prerequisite for educational transformation (Redecker, 2017). However, these frameworks are secular and do not explicitly integrate religious ethical dimensions into curriculum evaluation. For madrasahs, a value-neutral approach is inadequate because Islamic education is based on the principles of tawhid, integration of knowledge, and character building.

It is in this context that the urgency of developing a Digital Islamic Framework-Based Madrasah Curriculum Evaluation Model becomes significant. This model is not only oriented towards the effective use of technology, but also ensures that digital transformation remains within the corridor of maqasid al-shariah and Islamic ethics. Digitalization without a value framework has the potential to give rise to

technocratic pragmatism that neglects character building. Conversely, pedagogical conservatism without digital adaptation will marginalize madrasahs in global competition.

Previous research on the integration of Islam and technology has mostly remained at the normative level. For example, studies on digital ethics from an Islamic perspective emphasize the importance of manners in the use of social media and information technology (Ismail & Hassan, 2021; Sardar, 2019). However, there has not been much research linking digital ethics to a structural curriculum evaluation system. This means that Islamic values are often placed as teaching material, not as an evaluative framework that assesses the extent to which digital transformation supports Islamic educational goals holistically.

Furthermore, research on Society 5.0 in education shows that a human-centered technology approach requires an evaluation system that not only measures academic outcomes but also social and humanitarian impacts (Fukuyama, 2018). In the context of madrasahs, this means that evaluation must be able to assess the readiness of students to become digitally literate, ethical Muslims who are adaptive to technological changes without losing their Islamic identity. However, a preliminary literature review shows that there is no madrasah curriculum evaluation model explicitly designed to address these challenges.

The research gap can be formulated in three main dimensions. First, there is a conceptual gap, namely the absence of a synthesis between modern curriculum evaluation theory and the epistemology of Islamic education in the digital context. Existing evaluation models tend to be generic and do not consider the specific characteristics of madrasahs. Second, there is a contextual gap, namely the lack of research that positions madrasahs as strategic actors in the Society 5.0 ecosystem. Third, there is a methodological gap, because most previous studies used a descriptive approach without a systematic synthesis based on a comprehensive literature review.

These conditions indicate the need for a more integrative and systematic approach. Therefore, this study uses the Systematic Literature Review (SLR) method with the PRISMA approach to identify, analyze, and synthesize literature related to curriculum evaluation, digital transformation, Islamic education, and Society 5.0. This approach allows researchers to not only summarize previous studies but also construct a new conceptual framework based on scientific evidence and strong theoretical arguments (Moher et al., 2009; Page et al., 2021).

Theoretically, this study departs from the assumption that curriculum evaluation must be dynamic and contextual. The curriculum is not a static document, but a living system that interacts with social and technological changes. From an Islamic education perspective, these changes must be directed towards strengthening the integration of knowledge and the formation of perfect human beings. Thus, the madrasah curriculum evaluation model should not only measure the achievement of competency standards, but also assess the relevance of the curriculum to digital challenges, the integrity of Islamic values, and its impact on students' readiness for the future.

This research contributes to the formulation of a Digital Islamic Framework as a basis for evaluating madrasah curricula. This framework is built on three main pillars: (1) the integration of tauhid values in the orientation of digital curricula, (2) the strengthening of Islamic digital literacy and ethics, and (3) impact-based evaluation within the framework of Society 5.0. With this approach, curriculum evaluation is no longer understood as an administrative instrument, but as a strategic and future-oriented institutional transformation mechanism.

Practically, this model is expected to be a reference for policy makers in the Ministry of Religious Affairs, madrasah principals, and curriculum developers in formulating an adaptive and value-based evaluation system. Academically, this research contributes to the enrichment of Islamic education curriculum evaluation theory, which has been relatively lagging behind the discourse on general education evaluation.

Thus, the transformation of madrasahs in the Society 5.0 era is not merely a matter of technology adoption, but rather an integrative reconstruction of the curriculum evaluation system. Without relevant and value-based evaluation, digital transformation risks becoming cosmetic and failing to touch the

substance of Islamic education. Therefore, the development of a Digital Islamic Framework-Based Madrasah Curriculum Evaluation Model is both an academic and strategic necessity in responding to the increasingly complex challenges of the digital civilization.

2. METHODS

This study uses a Systematic Literature Review (SLR) approach with guidance from the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) as formulated by David Moher et al. (2009) and updated by Matthew J. Page et al. (2021). This approach was chosen to ensure that the process of identifying, selecting, and synthesizing literature was systematic, transparent, and replicable.

Literature searches were conducted in the Scopus, Web of Science, Google Scholar, DOAJ, and Garuda databases with a publication range of 2015–2025. The keywords used included a combination of Boolean operators: “curriculum evaluation,” “Islamic education,” “madrasah,” “digital transformation,” and “Society 5.0.” The inclusion criteria included indexed journal articles, full-text availability, and relevance to curriculum evaluation and digital transformation in Islamic education. Non-scientific opinion articles, duplicates, and studies not directly related to the research focus were excluded from the analysis.

The selection process followed the four PRISMA stages: identification, screening, eligibility, and inclusion. After eliminating duplicates and screening titles and abstracts, articles that met the criteria were analyzed in full. Data were extracted using a synthesis matrix containing the variables: evaluation model, dimensions of digitization, epistemological approach, and implications for madrasahs.

The analysis was conducted using narrative thematic techniques: open coding to identify main patterns, axial coding to connect evaluation and digitization concepts in an Islamic perspective, and selective coding to construct the Digital Islamic Framework conceptual construct. Validity was maintained through audit trails and database source triangulation to ensure consistency and depth of theoretical synthesis.

3. FINDINGS AND DISCUSSION

The results of the systematic literature review show that the discourse on curriculum evaluation in Islamic education and digital transformation is developing in parallel, but has not yet been conceptually integrated into a comprehensive evaluative framework. From all articles selected through the PRISMA procedure (Moher et al., 2009; Page et al., 2021), it appears that research on curriculum evaluation is still dominated by the use of classical models such as Ralph Tyler's goal model and the CIPP model developed by Daniel Stufflebeam (Stufflebeam & Shinkfield, 2007). These models are conceptually strong in assessing the alignment between objectives, processes, and outcomes, but they do not explicitly integrate the dimensions of digital transformation and Islamic values as a normative framework for evaluation.

The first finding shows that most curriculum evaluation studies in madrasahs are still oriented towards compliance with national education standards and institutional regulations. Evaluation is positioned as an administrative accountability mechanism, rather than a strategic reflective instrument for reading the dynamics of social and technological change. This is in line with the criticism raised by Voogt & Roblin, (2012) that curriculum reform often fails because evaluation is not designed to anticipate 21st-century competency changes. In the context of madrasahs, this condition is exacerbated by the tendency to maintain a normative curriculum structure that is unresponsive to digital developments (Azra, 2019; Muhaimin, 2020).

The second finding relates to digital transformation in Islamic education. The literature shows a significant increase in the adoption of learning technologies, including the use of Learning Management Systems, online learning, and the integration of digital media (Huda et al., 2022; Rahman, 2020). However, the adoption of these technologies has not been followed by a change in the curriculum evaluation paradigm. Evaluation still focuses on cognitive outcomes and academic achievement,

without considering the dimensions of digital literacy, ethics of technology use, and students' readiness to face the Society 5.0 ecosystem.

The concept of Society 5.0 itself, as introduced by the Government of Japan, emphasizes the integration of human-centered smart technology (Fukuyama, 2018). In this framework, technology is not an end in itself, but rather an instrument for improving quality of life and social welfare. Education, therefore, must prepare a generation that is not only technically competent, but also has ethical and social sensitivity. The OECD (2019) asserts that future education must develop agency, responsibility, and transformative competencies. When linked to Islamic education, these competencies are in line with the concepts of *insan kamil* and *maqasid al-shariah*, which emphasize a balance between reason, morality, and spirituality.

However, a synthesis of the literature shows that there is no madrasah curriculum evaluation model that explicitly combines the principles of human-centered technology with Islamic epistemology. This is where a significant conceptual gap is found. Conventional evaluation models are value-neutral and do not consider the theological dimension as an evaluative parameter. Meanwhile, Islamic education studies often focus on the integration of values in teaching materials, rather than on the evaluation framework (Hefner, 2016; Tan, 2018). In other words, Islamic values are present as content, not as an assessment structure.

Based on a thematic analysis of the selected articles, three major patterns can be identified. First, an outcome-based evaluation pattern that emphasizes the achievement of competency standards and cognitive indicators. Second, a quality management-based evaluation pattern that focuses on accreditation and institutional quality assurance. Third, a technology innovation-based evaluation pattern that measures the effectiveness of digital media use. These three patterns run independently and have not shown systemic integration between Islamic values, digital transformation, and future orientation.

The weakness of the academic outcome approach lies in its reductionist assessment. Digital literacy, for example, cannot be adequately measured through software usage skills, but must include critical thinking skills regarding digital information, ethical awareness, and social responsibility (Redecker, 2017). From an Islamic perspective, digital literacy must also consider the aspects of manners, trustworthiness, and honesty in cyberspace (Sardar, 2019). Curriculum evaluation that ignores these dimensions risks producing a generation that is technically proficient but morally fragile.

The quality management approach, on the other hand, often gets caught up in the formalities of accreditation. Evaluations are conducted to satisfy external assessment instruments, rather than to make substantive improvements to the curriculum. This results in a reactive and unsustainable evaluation culture. Within the framework of Society 5.0, this culture is inadequate because technological change is rapid and demands a continuous adaptive response (Salgues, 2018).

Meanwhile, technology-based innovation evaluation tends to be pragmatic and efficiency-oriented. Success is often measured by the level of digital platform usage or the number of devices available. However, the literature shows that the existence of technology does not automatically improve the quality of learning if it is not accompanied by changes in pedagogical and evaluative paradigms (OECD, 2019). In the context of madrasahs, the use of technology without a value framework can result in dissonance between spiritual goals and digital practices.

Based on this synthesis, this study developed a conceptual construct called the Digital Islamic Framework in madrasah curriculum evaluation. This framework is based on the integration of three main dimensions: the theological-normative dimension, the pedagogical-digital dimension, and the social-transformative dimension. The theological-normative dimension places *tauhid* as the foundation of the curriculum orientation. This means that the entire evaluation process must ensure that the integration of technology does not shift the main objectives of Islamic education, namely the formation of character and the strengthening of faith. The pedagogical-digital dimension emphasizes the importance of digital literacy, 21st-century competencies, and adaptive abilities to technological

changes. The social-transformative dimension directs the evaluation towards the impact of the curriculum on the readiness of students to face social challenges within the framework of Society 5.0.

Within this framework, the evaluation model is no longer linear, but systemic and reflective. Contextual evaluation not only assesses the alignment of the madrasah's vision with national regulations but also its relevance to global technological developments. Input evaluation is not limited to the availability of facilities and infrastructure but also includes teachers' digital competencies and the integrity of the values they carry. Process evaluation assesses the quality of technology integration in learning and the internalization of Islamic digital ethics. Output and outcome evaluation measures not only academic achievement but also Islamic digital literacy and the social readiness of students.

These findings also answer the first research question, namely the characteristics of a madrasah curriculum evaluation model that is relevant to Society 5.0. These characteristics include future orientation, the integration of values and technology, and a systemic approach based on social impact. This model goes beyond administrative evaluation and leads to transformative evaluation. The second problem formulation related to the construction of the Digital Islamic Framework is answered through a synthesis of literature that shows the need to integrate Islamic epistemology with modern evaluation theory. In this case, classical evaluation theory is not rejected, but reconstructed to be in line with the principles of tauhid and maqasid al-shariah. Thus, this model is dialogical, not antagonistic, towards Western theory. The third problem formulation regarding the synthesis of Islamic values and digital transformation is answered through the argument that technology must be positioned as a means (wasilah), not an end (ghayah). Curriculum evaluation must ensure that the use of AI, big data, or digital platforms does not erode human values and spirituality. The concept of human-centered technology in Society 5.0 epistemologically converges with the concept of rahmatan lil alamin in Islam, which is oriented towards human welfare (Fukuyama, 2018).

Theoretically, this study expands the discourse on Islamic education curriculum evaluation by presenting an integrative framework based on systematic literature evidence. Practically, this model provides strategic guidance for madrasahs to reconstruct their evaluation systems to be adaptive to digital changes. Thus, these results and discussions emphasize that without an integrative reformulation of curriculum evaluation, the transformation of madrasahs in the Society 5.0 era will be superficial. Digitalization should not stop at the device level but must touch the evaluative structure that is at the heart of educational quality control. The Digital Islamic Framework-Based Madrasah Curriculum Evaluation Model offers a visionary yet contextual conceptual direction in responding to these challenges.

4. CONCLUSION

This research confirms that the transformation of madrasahs in facing the Society 5.0 era cannot be achieved solely through the adoption of learning technology, but must be accompanied by a fundamental reconstruction of the curriculum evaluation system. The results of a systematic literature review indicate a conceptual gap between conventional curriculum evaluation models and the demands of a human-centered digital education ecosystem. The dominant evaluation methods, whether based on academic achievement, quality management, or technological innovation, have not fully integrated theological dimensions, digital ethics, and transformative orientations from an Islamic education perspective. In response to this gap, this research formulates a Digital Islamic Framework as the basis for developing an integrative madrasah curriculum evaluation model. This framework positions the values of monotheism and maqasid al-shariah as normative foundations, digital literacy and ethics as essential competencies, and social impact as an indicator of curriculum success. Thus, evaluation is no longer understood as an administrative instrument, but rather as a reflective-strategic mechanism that ensures alignment between technology, Islamic values, and students' readiness to face the changes of digital civilization. The developed model contributes to enriching the theory of Islamic education curriculum evaluation and offers practical implications for policymakers and madrasah

managers. This value-based and technology-based evaluation reform is a prerequisite for madrasas to remain relevant, adaptive, and visionary in the future educational landscape.

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