Conceptual Model of Blended Learning-Based Islamic Religious Education Learning Management for Strengthening the Digital Literacy of Senior High School Students

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Abstract

Digital transformation in education requires Islamic Religious Education (PAI) learning in senior high schools (SMA) to focus not only on students' mastery of religious knowledge but also on strengthening their digital literacy. However, technology-based PAI learning practices often remain technical-instrumental and have not been systematically managed through an integrated learning management model. This article aims to formulate a conceptual model of blended learning-based PAI learning m'/anagement to strengthen the digital literacy of SMA students. This study employed a qualitative approach using library research with an integrative literature review design. Data were collected from academic literature relevant to PAI learning management, blended learning, digital literacy, and conceptual research methodology. The data were analyzed through reduction, thematic categorization, critical interpretation, and conceptual synthesis. The findings show that the proposed model integrates five main dimensions: managerial, pedagogical, technological, evaluative, and religious. This model positions blended learning not merely as a combination of face-to-face and online learning, but as a planned, adaptive, and value-based PAI learning system. The study concludes that strengthening digital literacy in PAI requires learning management that shapes students to be religious, critical, ethical, and digitally literate.

Keywords: PAI learning management; blended learning; digital literacy; senior high school; conceptual model.

INTRODUCTION

The rapid adoption of digital technology has transformed learning practices in Indonesian senior high schools, including Islamic Religious Education (PAI). As digital learning becomes increasingly common, PAI teachers are expected not only to integrate technology into instruction but also to cultivate students' digital literacy while maintaining Islamic values. This challenge is particularly important because students are frequently exposed to diverse digital religious content whose credibility and ethical implications are often questionable. Consequently, blended learning has emerged as a promising instructional approach, yet its successful implementation requires systematic learning management rather than merely combining face-to-face and online instruction.

Previous studies have demonstrated that blended learning enhances learning flexibility, student engagement, and learning outcomes across educational settings. Research in PAI has similarly reported positive effects of blended learning on students' achievement and character development. In parallel, studies on digital literacy emphasize that students require not only technical skills but also critical thinking, information evaluation, digital ethics, and responsible participation in digital environments. These findings indicate that blended learning and digital literacy are closely related in improving educational quality.

Despite these contributions, existing studies remain fragmented. Most research evaluates the effectiveness of blended learning or the use of digital platforms without examining how learning management supports successful implementation in PAI. Likewise, digital literacy is commonly treated as an instructional outcome rather than as a central objective embedded within learning management. Furthermore, limited attention has been given to integrating Islamic educational values

with managerial, pedagogical, technological, and evaluative dimensions into a coherent framework for blended learning. These limitations reveal the absence of a comprehensive conceptual model capable of guiding PAI teachers in designing blended learning that simultaneously strengthens students' digital literacy and Islamic values.

To address this gap, this study proposes a conceptual model of blended learning-based PAI learning management for strengthening the digital literacy of senior high school students. Unlike previous studies, this model conceptualizes blended learning as a comprehensive management system encompassing planning, organizing, implementation, supervision, evaluation, and continuous improvement. In addition, digital literacy is positioned as a primary educational objective integrated with Islamic ethical values rather than as a supplementary competency.

Accordingly, this study seeks to answer the following research question: How can a conceptual model of blended learning-based Islamic Religious Education learning management be developed to strengthen the digital literacy of senior high school students? The proposed model is expected to contribute theoretically by extending the discourse on PAI learning management through the integration of blended learning and digital literacy, while providing practical guidance for teachers, curriculum developers, and educational policymakers in designing adaptive and value-oriented PAI learning in the digital era.

METHOD/EXPERIMENT

This study uses a qualitative approach with library research directed toward developing a conceptual model of blended learning-based Islamic Religious Education learning management for strengthening the digital literacy of senior high school students. The selection of library research is based on the conceptual nature of the article, which does not originate from direct field data collection, but from a critical review of relevant academic literature. Conceptual research holds an important position in scientific development because it aims to formulate theoretical syntheses, construct frameworks of thought, and offer new models based on the integration of previously developed findings and concepts (Jaakkola, 2020). In this context, library research is used to identify, classify, analyze, and synthesize theories and previous research findings related to PAI learning management, blended learning, and digital literacy.

Methodologically, this study employs an integrative literature review design, a form of literature review that seeks to integrate various theoretical and empirical perspectives to produce a new understanding of a phenomenon. Snyder (2019) explains that literature reviews can be used as research methodology when researchers seek to map the development of knowledge, identify research gaps, and build conceptual contributions. In line with this view, Torraco (2016) emphasizes that an integrative literature review does not merely summarize previous research but also develops conceptual synthesis that can open new directions for research and practice. Therefore, this approach is considered appropriate for formulating a conceptual model of blended learning-based PAI learning management oriented toward strengthening the digital literacy of SMA students.

The research location in this study is not a geographical site as in field research, but rather an academic inquiry space encompassing national and international scientific literature. The research context is directed toward Islamic Religious Education learning in senior high schools as a conceptual object. The selection of the SMA context is based on the consideration that students at this level are in a phase of increasingly complex cognitive, social, and moral development and are highly familiar with digital technology. Therefore, PAI learning at the SMA level needs to be managed systematically so that it not only improves religious understanding but also forms critical, ethical, and responsible digital literacy.

The subjects of this library research are not individual or group participants, but academic documents relevant to the focus of the study. These documents include scientific journal articles, academic books, theoretical studies, and scholarly publications discussing PAI learning management, blended learning, digital literacy, digital learning, and conceptual research methodology. The literature used was selected from valid, traceable references with direct relevance to the main variables of the

study. Several key references forming the basis of the review include Garrison and Kanuka (2004), Hrastinski (2019), Boelens et al. (2017), Eshet-Alkalai (2004), Tang and Chaw (2016), Munastiwi and Marfuah (2019), Sahibe et al. (2025), and Snyder (2019).

The technique for determining data sources was purposive, namely selecting literature based on criteria aligned with the needs of the study. The inclusion criteria included: first, literature that discusses one or more main aspects, namely learning management, Islamic Religious Education, blended learning, digital literacy, or conceptual literature studies; second, literature originating from verifiable academic sources, such as scientific journals, academic publishers, or scholarly databases; third, most literature published within the last five to ten years to maintain relevance to digital education development; and fourth, literature that offers theoretical or empirical contributions to the development of the conceptual model. Classic literature was used in a limited manner when it had strong influence on the formation of foundational theories, such as the concepts of blended learning and digital literacy.

Data collection was conducted through literature documentation. The researcher searched, read, recorded, and organized literature related to the research topic. The data collection process involved several stages. First, key literature was identified using keywords such as Islamic Religious Education, blended learning, learning management, digital literacy, conceptual model, and literature review. Second, the literature was selected based on content relevance, source validity, and connection to the research focus. Third, important information from each source was recorded, including main concepts, research findings, theories used, weaknesses of the study, and contributions to model development. Fourth, the literature was grouped into several themes: PAI learning management, blended learning design, digital literacy, digital learning challenges, and conceptual research methodology.

The main instrument in this study is the researcher as the key instrument. In qualitative library-based research, the researcher plays a role in determining the study focus, selecting sources, reading critically, interpreting data, and constructing conceptual synthesis. In addition, an auxiliary instrument was used in the form of a literature review sheet containing source identity, study focus, main concepts, relevance to the research, important findings, and critical notes. This review sheet was used to maintain an orderly analytical process and to ensure that each source was read systematically rather than merely cited descriptively.

Data analysis used qualitative content analysis and conceptual synthesis. The analysis was conducted through several steps. First, data reduction was carried out by selecting information relevant to the research focus. Second, categorization was conducted by grouping information into conceptual themes, such as learning management functions, blended learning design, digital literacy dimensions, and PAI values. Third, critical interpretation was undertaken by examining relationships among concepts and assessing the strengths and limitations of previous studies. Fourth, conceptual synthesis integrated various findings and theories into a framework of blended learning-based PAI learning management. Fifth, model formulation produced a conceptual construction comprising the dimensions of planning, implementation, supervision, evaluation, follow-up, and strengthening digital literacy based on Islamic values.

Data trustworthiness in this study was maintained through source triangulation, persistent review, and reference audit. Source triangulation was conducted by comparing various literatures from different perspectives, including PAI studies, educational technology, digital literacy, and library research methodology. Persistent review was performed by reading the literature repeatedly to ensure accurate understanding of concepts and findings. Reference audit was carried out by ensuring that every source used had a clear academic identity, could be traced through a DOI or official link, and was relevant to the research focus. In addition, consistency between in-text citations and the reference list was maintained so that no source was cited without being listed in the references, and vice versa.

Ethical considerations in this study were addressed by maintaining academic integrity in the use

of sources. All ideas, theories, and findings derived from other scholarly works were cited according to APA Style, 7th Edition. This study avoids plagiarism, source manipulation, and the use of unverifiable references. Because this study does not directly involve human participants, there are no ethical risks related to respondent confidentiality, participant consent, or personal data protection. Nevertheless, academic ethics were maintained through citation honesty, interpretive accuracy, and caution in drawing conclusions from the literature used.

With this methodological design, the study is expected to produce a conceptual model that has a strong theoretical foundation and practical relevance for developing PAI learning in senior high schools. This library study provides the basis for formulating a blended learning-based PAI learning management model that is directed, systematic, and oriented toward strengthening students' digital literacy

RESULTS AND DISCUSSION

Results

The findings of this study are organized based on a synthesis of academic literature relevant to Islamic Religious Education learning management, blended learning, and digital literacy. Because this study uses a library research approach, the supporting data are not interviews or field observations, but scientific documentation from journal articles, conceptual studies, and verified previous research findings. Based on the review, five main themes were identified: the need for transformation in PAI learning management, the integration of blended learning in PAI learning, the strengthening of students' digital literacy, challenges in implementing blended learning in PAI, and the construction of a conceptual model of blended learning-based PAI learning management.

Transformation of PAI Learning Management in the Digital Era

The first finding indicates that Islamic Religious Education learning in senior high schools requires a transformation of learning management that is more adaptive to digital change. PAI is not sufficient when managed as normative learning centered on the delivery of religious content; instead, it must be designed as a learning system capable of integrating Islamic values, digital technology, and the competency needs of the twenty-first century.

Documentary data from the literature show that PAI learning management includes the processes of planning, implementation, supervision, evaluation, and follow-up. Munastiwi and Marfuah (2019) emphasize that Islamic education learning management requires careful planning, directed implementation, and continuous evaluation. Sahibe et al. (2025) also show that PAI learning management in the contemporary curriculum context demands teacher readiness, appropriate strategy selection, management of learning resources, and adaptation to learners' characteristics.

The emerging pattern of findings is that PAI learning management cannot be separated from changes in students' learning environments. Senior high school students today interact intensively with digital technology, social media, online learning platforms, and online religious information sources. This condition requires PAI teachers to manage learning in a more open, flexible, and contextual manner. Thus, the transformation of PAI learning management is not only related to the use of digital media, but also to changes in how learning objectives, materials, methods, activities, evaluation, and follow-up are designed.

The relationships among the findings show that learning management transformation is the main foundation for implementing blended learning. Without proper management, the use of technology in PAI learning risks becoming merely a technical supplement rather than part of a meaningful learning system. Therefore, this study positions learning management as the main framework that directs the use of blended learning to strengthen students' digital literacy.

Integration of Blended Learning in PAI Learning

The second finding shows that blended learning is strongly relevant to PAI learning in senior

high schools because it can combine the advantages of face-to-face learning and digital learning. Face-to-face learning remains important in PAI because it relates to exemplary conduct, value dialogue, attitude formation, and internalization of moral character. Meanwhile, online learning provides space for students to access digital learning resources, engage in flexible discussions, develop learning autonomy, and broaden religious literacy.

Documentary data show that Garrison and Kanuka (2004) view blended learning as an approach with transformative potential because it integrates direct interaction with the power of learning technology. Hrastinski (2019) adds that blended learning needs to be clearly defined so that it is not understood merely as a combination of physical classrooms and online activities. In the PAI context, Dwiputro (2022) finds that blended learning-based PAI learning in SMA can be a relevant strategy for adapting learning to the needs of digital students. Dwiputro et al. (2021) also show that a blended learning model in PAI subjects can be developed through a combination of face-to-face activities, digital media use, and technology-based independent assignments.

The pattern of findings indicates that the integration of blended learning in PAI functions effectively when it is pedagogically designed, not merely administratively arranged. This means that teachers should not only provide material through digital platforms, but also design a clear relationship between face-to-face activities and online activities. Materials requiring value explanation, attitude formation, and ethical dialogue are more appropriately strengthened through face-to-face learning. Meanwhile, information exploration, digital reflection, project assignments, searches for Islamic sources, and media-based discussions can be developed through online learning.

The relationship between this finding and the previous theme shows that blended learning requires structured learning management. Planning determines objectives and activity design; implementation regulates the integration of face-to-face and online learning; supervision ensures student engagement; evaluation measures learning achievement; and follow-up strengthens competencies that have not yet been achieved. Thus, blended learning in PAI does not stand as a single method, but as part of a learning management system.

Digital Literacy as an Orientation of PAI Learning

The third finding indicates that digital literacy needs to be positioned as one of the main orientations of blended learning-based PAI learning. Digital literacy is not only understood as the ability to use technological devices, but also as the ability to search, select, evaluate, understand, produce, and use digital information critically and ethically.

Documentary data show that Eshet-Alkalai (2004) explains digital literacy as a multidimensional ability that includes visual, information, reproduction, branching, and socio-emotional skills. Ng (2012) emphasizes that students who are familiar with technology do not automatically possess sound digital literacy. This is important in the SMA context because students are often active users of digital media, but they are not necessarily able to assess information validity, distinguish credible sources, or use technology responsibly. Tang and Chaw (2016) also show that digital literacy is an essential prerequisite for effective learning in blended learning environments.

The pattern of findings shows a shift in the meaning of digital literacy in PAI learning. Digital literacy is insufficient when understood only as a technical skill, such as accessing learning applications or downloading materials. In PAI, digital literacy must be connected to the ability to understand religious information in digital spaces, assess source authority, avoid disseminating inaccurate information, maintain proper conduct in online communication, and use technology to strengthen understanding and practice of Islamic values.

The relationships among the findings show that digital literacy is both an objective and a prerequisite in blended learning-based PAI learning. As an objective, digital literacy becomes an intended competency strengthened through the learning process. As a prerequisite, digital literacy

determines students' success in participating in online learning activities. Therefore, a conceptual model of blended learning-based PAI learning management needs to include digital literacy from the planning stage, not merely as an additional outcome after learning has taken place.

Challenges in Implementing Blended Learning in PAI Learning

The fourth finding indicates that the implementation of blended learning in PAI learning faces various technical, pedagogical, managerial, and cultural challenges. Technical challenges relate to device availability, internet access, and the ability to use digital platforms. Pedagogical challenges relate to teachers' ability to design meaningful learning activities. Managerial challenges relate to learning planning, supervision, and evaluation. Cultural challenges relate to students' readiness, digital learning culture, and understanding of ethical technology use.

Documentary data show that Boelens et al. (2017) identify four main challenges in blended learning design: flexibility, interaction, facilitation of the learning process, and creation of a supportive learning climate. Rasheed et al. (2020) also find that the online component in blended learning presents challenges at the levels of students, teachers, and institutions. In the Indonesian PAI context, Firmansyah et al. (2024) show that the challenges of blended learning implementation include limited access, technological readiness, digital competence, and safe use of digital media.

The pattern of findings indicates that the main obstacles to blended learning do not lie solely in technology, but in the readiness of the learning system. Technology may be available, yet learning remains ineffective if teachers are unable to design structured activities, students lack digital learning discipline, and schools do not have adequate support systems. In PAI learning, this challenge becomes even more important because PAI material requires value internalization, character formation, and educative communication that cannot always be easily achieved through digital media.

The relationships among the findings show that challenges in blended learning implementation can be minimized through directed learning management. Good planning can anticipate limitations in access and student readiness. Flexible implementation can align face-to-face and online activities. Supervision can maintain student engagement. Evaluation can measure cognitive, affective, and digital literacy outcomes. Thus, the challenges of blended learning implementation reinforce the importance of developing a conceptual model of PAI learning management.

Learning Autonomy and Student Engagement in Blended Learning

The fifth finding indicates that blended learning has the potential to increase students' learning autonomy and engagement when supported by a structured learning design. In PAI learning, learning autonomy does not merely mean the ability to complete assignments independently, but also the ability to search for religious learning resources, conduct value reflection, manage learning time, and take responsibility for one's own learning process.

Documentary data show that Van Laer and Elen (2017) emphasize the importance of supporting self-regulation in blended learning environments. Such support can include learning guidance, feedback, activity structures, reflection, and learning control. Nikmah and Mubarok (2022) show that the implementation of blended learning in PAI and Character Education can support improved learning outcomes. Salsabila et al. (2023) also demonstrate that blended learning can be connected to strengthening students' character through PAI learning.

The pattern of findings indicates that students' autonomy and engagement do not emerge automatically in digital learning. Students need guidance, structure, and feedback in order to use online learning productively. In the PAI context, teachers remain important as value guides, discussion facilitators, clarifiers of religious information, and reinforcers of students' character.

The relationships among the findings show that learning autonomy, digital literacy, and PAI learning are mutually connected. Students with stronger digital literacy will be better able to manage digital learning resources. Conversely, well-designed blended learning-based PAI learning

can strengthen students' digital literacy and learning autonomy. Therefore, the conceptual model developed in this study needs to include elements that strengthen autonomy, engagement, reflection, and digital responsibility.

Construction of the Conceptual Model of Blended Learning-Based PAI Learning Management

Based on the synthesis of the findings above, the main result of this study is the formulation of a conceptual model of blended learning-based PAI learning management for strengthening the digital literacy of senior high school students. This model is built upon five main components: learning planning, organization of learning resources, implementation of blended learning, learning evaluation, and follow-up for strengthening digital literacy.

First, the learning planning stage includes analysis of students' needs, determination of PAI learning outcomes, mapping of digital literacy competencies, selection of materials, selection of digital platforms, and preparation of face-to-face and online learning scenarios. At this stage, digital literacy is positioned as part of the learning objectives, not merely as an additional skill.

Second, the organization of learning resources includes the management of teaching materials, digital media, online Islamic resources, evaluation tools, and learning communication mechanisms. Teachers need to ensure that the digital resources used are credible, relevant, aligned with PAI values, and accessible to students.

Third, the implementation of blended learning includes the integration of face-to-face and online learning. Face-to-face learning is used to strengthen concepts, conduct value discussions, foster character, and clarify material. Online learning is used for the exploration of digital resources, reflective assignments, online discussions, digital literacy projects, and enrichment of PAI materials.

Fourth, learning evaluation includes assessment of cognitive, affective, skills-based, and digital literacy aspects. Evaluation does not only measure students' understanding of PAI material, but also their ability to search for information, evaluate digital sources, communicate ethically, and use technology responsibly.

Fifth, follow-up for strengthening digital literacy includes feedback, remedial learning, enrichment, digital reflection, guidance in media ethics, and strengthening of religious character in digital activities. This stage is important so that digital literacy does not stop as a technical ability but develops into learning habits and digital behavior aligned with Islamic values.

The pattern of findings from this model shows that blended learning-based PAI learning management operates cyclically, not linearly. Planning influences implementation, implementation generates evaluation data, evaluation becomes the basis for follow-up, and follow-up improves subsequent learning planning. Thus, the model is dynamic, adaptive, and oriented toward continuous improvement.

Synthesis of Research Findings

Overall, the findings show that strengthening the digital literacy of SMA students through PAI learning requires a systematic learning management model. Blended learning is not sufficient when understood merely as a method combining face-to-face and online learning; rather, it must be positioned as a learning system managed through management functions. Digital literacy is also insufficient when understood merely as a technical skill in using devices; it must be understood as critical, ethical, reflective, and religious competence in using digital technology.

The relationships among the findings in this study show a close connection among learning management, blended learning, digital literacy, and PAI values. Learning management functions as the management framework. Blended learning functions as an integrative strategy. Digital literacy functions as the target competency. PAI values function as the ethical and spiritual foundation. These four elements form an integrated conceptual model that can be used to strengthen the quality of PAI learning in senior high schools.

Accordingly, the findings affirm that a conceptual model of blended learning-based PAI learning management should be built through the integration of managerial, pedagogical, technological, evaluative, and religious dimensions. This model is expected to serve as a foundation for PAI teachers, schools, and curriculum developers in designing learning that is more adaptive to the digital era while remaining grounded in Islamic values

Discussion

The findings of this study affirm that a conceptual model of blended learning-based Islamic Religious Education (PAI) learning management needs to be built through the integration of five main dimensions: managerial, pedagogical, technological, evaluative, and religious. This finding shows that strengthening the digital literacy of senior high school students cannot be achieved merely by providing technological devices or using online learning platforms. Digital literacy in PAI learning must be understood as the result of a learning process that is systematically managed, pedagogically designed, supported by relevant technology, comprehensively evaluated, and directed by Islamic values.

Critically, this finding reveals that the main problem in digital-based PAI learning lies not only in the availability of technology, but also in the capacity of institutions and teachers to manage technology as part of the learning system. In practice, digital-based learning often stops at transferring materials from the classroom to virtual spaces. Teachers deliver materials through applications, students access assignments online, and evaluation is conducted through digital platforms. However, such patterns do not necessarily reflect meaningful blended learning. Blended learning has transformative value only when face-to-face and online learning are designed to complement one another rather than operate separately. This is consistent with Garrison and Kanuka's (2004) view that blended learning has transformative potential when it pedagogically integrates the strengths of direct interaction and the flexibility of digital technology.

The findings also strengthen Hrastinski's (2019) view that the concept of blended learning must be clearly defined so that it does not become trapped in a technical understanding as a mere combination of face-to-face and online learning. In the PAI context, blended learning cannot simply be interpreted as the use of digital media to deliver religious material. More broadly, blended learning must be managed as a learning strategy that enables students to understand Islamic teachings, develop religious attitudes, and possess critical and ethical digital competencies. Thus, this article extends the understanding of blended learning from a learning strategy into a learning management framework integrated with PAI values.

From a managerial perspective, the findings show that planning, organizing, implementation, supervision, evaluation, and follow-up are important elements in blended learning-based PAI learning. This finding aligns with Munastiwi and Marfuah (2019), who emphasize the importance of Islamic education learning management through systematic planning, implementation, and evaluation. Sahibe et al. (2025) also affirm that PAI learning management requires teacher readiness, strategic suitability, management of learning resources, and evaluation that is adaptive to learners' needs. This article supports those findings while extending them by placing digital literacy as a primary orientation in PAI learning management.

From a pedagogical perspective, the proposed conceptual model shows that blended learning-based PAI learning should position students as active subjects in the learning process. Face-to-face learning can be used for value dialogue, moral internalization, clarification of material, and attitude formation. Online learning can be directed toward the exploration of digital religious resources, reflective discussion, project assignments, digital portfolio development, and the strengthening of learning autonomy. This finding supports Dwiputro's (2022) study, which shows that blended learning-based PAI learning in SMA can be a strategic alternative for improving learning effectiveness. It is also in line with Dwiputro et al. (2021), who emphasize that a blended learning model in PAI subjects can be developed through a combination of face-to-face activities, digital media, and independent

assignments.

However, this discussion does not merely affirm previous studies. This article offers an important extension by positioning blended learning within a more comprehensive learning management framework. Previous studies tend to discuss blended learning as a learning model or method, while this article positions it as a learning system requiring managerial design. Therefore, the success of blended learning is not determined only by the variation of learning activities, but also by the alignment among objectives, materials, media, interaction, evaluation, and learning follow-up.

From a technological perspective, the findings show that technology must be positioned as a pedagogically meaningful learning medium, not as the final objective of learning. The use of technology in PAI needs to be directed toward strengthening students' ability to access, evaluate, understand, and use digital information responsibly. This finding is closely related to the concept of digital literacy proposed by Eshet-Alkalai (2004), who defines digital literacy as a multidimensional ability encompassing cognitive, technical, visual, informational, and socio-emotional aspects. In the PAI context, digital literacy is not sufficient when interpreted as the ability to operate devices or applications; it also includes the ability to filter religious information, assess source authority, avoid disseminating misinformation, and maintain ethical digital communication.

This finding also supports Ng's (2012) argument that students born and raised in the digital era do not automatically possess adequate digital literacy. Students' familiarity with social media, digital applications, and the internet does not necessarily indicate critical thinking, ethical awareness, or the ability to assess information validity. Therefore, PAI learning has a strategic role in shaping digital literacy that is not only technical, but also moral and religious. Tang and Chaw (2016) emphasize that digital literacy is an important prerequisite for learning effectiveness in blended learning environments. This article supports that view while extending it by adding that, in PAI, digital literacy must be linked to digital adab, moral responsibility, and Islamic values.

From an evaluative perspective, this conceptual model shows that evaluation of blended learning-based PAI learning must cover cognitive, affective, skills-based, and digital literacy aspects. Evaluation is not sufficient if it only measures mastery of religious material; it must also assess students' ability to search for valid Islamic information, critique digital content, express ideas ethically, and demonstrate responsible digital behavior. Thus, evaluation in this model is more comprehensive and authentic. Evaluation functions not only as measurement of learning outcomes but also as a mechanism for fostering digital literacy and religious character.

This finding relates to the study of Van Laer and Elen (2017), which emphasizes the importance of supporting self-regulation in blended learning environments. Students need structure, guidance, feedback, and reflection in order to learn independently in digital environments. In PAI learning, support for self-regulation becomes increasingly important because students are required not only to understand material but also to internalize values and apply them in digital behavior. Therefore, learning follow-up needs to be designed as part of learning management, for example through personal feedback, enrichment, digital reflection, guidance in media ethics, and mentoring in the use of online religious resources.

From a religious perspective, the findings show that PAI values must become the foundation of the entire blended learning-based learning management process. The religious dimension should not appear only in teaching materials, but also in how teachers design learning, select digital resources, build interaction, assign tasks, conduct evaluation, and guide students' digital behavior. In this regard, PAI learning has a distinctive position compared with other subjects because its orientation is not only cognitive achievement but also the formation of moral character, spiritual awareness, and social responsibility. Parhan et al. (2024) emphasize that PAI in the Society 5.0 era needs to move toward transformative pedagogy that integrates Islamic values with global competencies and adaptive capacities in response to technological development. The findings of this article support that view by offering a conceptual model that positions Islamic values as the ethical foundation for strengthening digital literacy.

Compared with previous studies, this article takes a position that both supports and extends earlier findings. It supports Nikmah and Mubarok (2022), who show that the implementation of blended learning can improve learning outcomes in PAI and Character Education. It also supports Salsabila et al. (2023), who connect blended learning with the strengthening of students' character through PAI. However, this article extends that focus by not only viewing learning outcomes or character as achievements, but by positioning digital literacy as a strategic competence that must be systematically managed in PAI learning. Thus, this article shifts the discussion from the level of method implementation to the level of conceptual model formulation.

This article also strengthens the findings of Boelens et al. (2017) and Rasheed et al. (2020), who show that blended learning faces challenges in flexibility, interaction, student readiness, teacher competence, institutional support, and infrastructure. In the PAI context, these challenges are not merely technical, but also concern how religious values can continue to be internalized within a digital learning ecosystem. Firmansyah et al. (2024) show that challenges in implementing blended learning in PAI in Indonesia include internet access, digital skills, and safe use of digital media. This article extends those findings by arguing that such challenges need to be addressed through a learning management design integrating managerial, pedagogical, technological, evaluative, and religious dimensions.

The theoretical contribution of this article lies in the development of a conceptual framework for blended learning-based PAI learning management oriented toward digital literacy. This article enriches Islamic education management studies by incorporating digital literacy as part of learning objectives, processes, and evaluation. In addition, it expands the discourse on blended learning by placing it within the context of PAI learning, which has value-based, ethical, and religious characteristics. Conceptually, this article offers the perspective that digital literacy in PAI must not be reduced to technical competence, but should be understood as critical, ethical, reflective, and religious competence.

The practical contribution of this article lies in providing a framework for PAI teachers, schools, and curriculum developers in designing learning that is adaptive to the digital era. For PAI teachers, this model can serve as a reference in preparing lesson plans that meaningfully integrate face-to-face and online learning. For schools, the model can be used as a basis for developing digital learning policies that are oriented not only toward infrastructure but also toward the quality of the learning process. For curriculum developers, the model may serve as a reference in formulating PAI learning outcomes that include dimensions of religious knowledge, religious attitudes, digital skills, and media ethics.

The policy implication of these findings is that schools and educational stakeholders need to position digital literacy as an integral part of PAI learning. Digital learning policies are not sufficient if they only provide internet networks, devices, or learning platforms. Policies must also include the improvement of PAI teachers' digital competence, the development of credible digital religious learning resources, the preparation of Islamic digital ethics guidelines, and evaluation systems capable of comprehensively measuring students' digital literacy. Thus, strengthening digital literacy in PAI requires policy support that is pedagogical, managerial, and cultural.

The implication for educational practice is the need for PAI teachers to design learning that not only delivers teaching materials but also trains students to interact with digital information critically. For example, students may be assigned to examine Islamic content from various digital sources, compare the credibility of sources, prepare ethical reflections, create educational digital da'wah projects, or discuss cases of social media ethics from the perspective of Islamic teachings. Such practices will make PAI learning more contextual, relevant, and closely connected to the digital lives of SMA students.

The implication for scientific development is the opening of new research spaces at the intersection of PAI learning management, blended learning, digital literacy, and Islamic digital ethics. PAI studies in the digital era are not sufficient when they only discuss the use of technology as a

learning medium; they need to move toward the development of models, evaluation instruments, curriculum designs, and strategies for digital character formation. Thus, this article can become a starting point for more empirical follow-up research, such as model testing in schools, development of digital literacy instruments based on PAI values, or case studies of blended learning implementation in PAI learning across various school contexts.

Nevertheless, this study has limitations. First, it is conceptual and based on library research, so the formulated model has not yet been empirically tested in the field. Second, the article does not present direct data from teachers, students, principals, or curriculum developers regarding model implementation in a specific school context. Third, the senior high school context in this article remains general and does not yet describe differences in school characteristics based on region, digital facilities, students' social backgrounds, or teacher readiness. Fourth, the proposed model still requires further development in the form of operational indicators, evaluation instruments, and practical implementation guidelines.

Considering these strengths and limitations, the synthesis of this discussion affirms that the conceptual model of blended learning-based PAI learning management has important scientific and practical value. The model addresses a gap in previous studies that tended to discuss blended learning, PAI, and digital literacy separately. The integration of managerial, pedagogical, technological, evaluative, and religious dimensions is the main strength of this model because it positions PAI learning as a process that is adaptive to digitalization without losing its value orientation. Thus, blended learning-based PAI learning is not merely a technical response to technological development, but also an Islamic educational strategy for forming students who are religious, critical, ethical, and digitally literate

CONCLUSION

This study concludes that the conceptual model of blended learning-based Islamic Religious Education learning management for strengthening the digital literacy of senior high school students can be formulated through the integration of five main dimensions: managerial, pedagogical, technological, evaluative, and religious. These five dimensions form an integrated learning system that not only regulates the use of technology in PAI, but also directs the learning process to remain oriented toward Islamic values, character formation, and the strengthening of students' digital competencies. Thus, the research objective is answered: strengthening digital literacy in PAI learning requires a planned, structured, adaptive, and value-based learning management model.

The synthesis of the findings shows that blended learning in PAI is not sufficient when understood as the combination of face-to-face and online learning; it must be positioned as a managerial-pedagogical strategy that connects planning, implementation, evaluation, and learning follow-up. Digital literacy also cannot be reduced to the technical ability to use digital devices; it includes critical thinking, the ability to select valid religious information sources, ethical communication, and responsible technology use. Therefore, the proposed model affirms that PAI learning in the digital era must be able to shape students who are religious, reflective, critical, and digitally literate.

Theoretically, this study contributes to expanding the field of PAI learning management by integrating the concepts of blended learning and digital literacy within a single conceptual framework. The model addresses the gap in previous studies that tended to discuss PAI, blended learning, and digital literacy separately. Practically, this model can serve as a reference for PAI teachers, schools, and curriculum developers in designing learning that is more relevant to the needs of senior high school students in the digital era, particularly in formulating learning objectives, selecting digital learning resources, managing learning interactions, and developing evaluations that include knowledge, attitudes, skills, and digital ethics.

The implications of this study show that strengthening digital literacy in PAI requires school policy support that focuses not only on the provision of technological infrastructure, but also on

improving teachers' digital competence, developing credible religious learning resources, fostering Islamic digital ethics, and creating more authentic learning evaluation systems. However, this study is limited because it remains conceptual and library-based, meaning that the formulated model has not yet been empirically tested in school learning practices. Therefore, future research is recommended to test this model through field studies, case studies, development research, or limited experiments in PAI learning at senior high schools with different school characteristics

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