FIQHMU AI: SMART ISLAMIC LEARNING FOR CONTEMPORARY FIQH AND FAMILY WAQF

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Abstract. The development of Artificial Intelligence (AI) has brought significant changes to the higher education landscape, including in the field of Islamic education. In the context of Fiqh Muasarah, a more flexible, interactive and student-centered teaching approach is increasingly needed because this field discusses various current issues such as Islamic fintech, blockchain, cryptocurrency, social media, bioethics, artificial intelligence and Islamic property management including family waqf. However, conventional teaching approaches that are still lecture-oriented are found to be less able to meet the learning patterns of today's digital student generation. Therefore, this study aims to discuss the conceptual development of FiqhMu AI as a smart learning system to support the teaching and learning process of Fiqh Muasarah and family waqf in institutions of higher learning. This study uses a conceptual qualitative approach through document analysis and systematic literature review related to AI in education, Islamic digital pedagogy and family waqf education. The study findings show that the use of AI has the potential to increase learning effectiveness through adaptive learning, educational chatbots, simulation of contemporary fiqh cases, automatic assessment and learning analytics. In addition, FiqhMu AI also has the potential to improve family waqf literacy through asset management simulation, inheritance visualization and real-world situation-based learning. This study also proposes FiqhMu AI as an early model of a smart Islamic learning ecosystem that integrates AI technology, Islamic digital pedagogy and family waqf literacy in a more systematic and contextual manner. Overall, FiqhMu AI has the potential to be an Islamic pedagogical innovation in strengthening Muasarah Fiqh education and family waqf in line with the higher education digital transformation agenda.
Keywords: *artificial intelligence, fiqh muasarah, family waqf, smart learning ecosystem, Islamic digital pedagogy, digital transformation of education*

Introduction

Digital transformation in the era of Industrial Revolution 4.0 has brought significant changes to the global education system. Technological developments such as Artificial Intelligence (AI), Internet of Things (IoT), blockchain and big data analytics are increasingly influencing teaching and learning methods in higher education institutions. These changes are also in line with the aspirations of Education 5.0 which emphasizes the use of smart technology to produce more flexible, interactive and student-centered learning (Crompton and Burke, 2023). In the context of higher education, AI is among the technologies that are increasingly gaining attention because of its ability to assist in the implementation of adaptive learning, smart tutor systems, educational chatbots, learning analytics and assessment automation. The use of AI allows learning content to be tailored to the level of understanding and individual needs of students in a more systematic way. In addition to helping improve learning effectiveness, AI is also seen to be able to support a learning experience that is more responsive to current changes

(Holmes et al., 2022). However, the integration of AI in Islamic education has not yet developed comprehensively. Most Islamic studies teaching still uses conventional approaches such as lectures, lectures and text memorization. This approach certainly has its own value in the tradition of Islamic education but teaching methods that are too theory-oriented are found to be less helpful in helping students connect knowledge with current reality and solve contemporary problems. Therefore, today's Islamic education requires a pedagogical approach that is more interactive, contextual and in line with the development of digital technology (Alam, 2022).

This need is even more important in teaching Fiqh Muasarah because this field involves various current issues that are constantly evolving in line with changes in technology, economy and society. Fiqh Muasarah not only discusses issues of traditional worship and muamalat, but also involves issues such as Islamic fintech, cryptocurrency, digital contracts, artificial intelligence, bioethics, organ donation and ethics in the use of social media. The diversity of these issues requires a teaching approach that can help students understand the application of sharia principles in real situations in a more critical and practical way. In addition to the issue of Fiqh Muasarah, family waqf is also increasingly receiving attention in discussions of contemporary economics and Islamic education. Family waqf not only functions as an instrument of welfare but also plays a role in the preservation of assets, the development of the family economy and the formation of a continuous generational legacy. However, the level of community literacy regarding family waqf is still at a moderate level, especially from the perspective of practical understanding regarding asset management and waqf applications in real life (Kasri and Chaerunnisa, 2022). The weakness of family waqf literacy is partly due to a learning approach that is too theoretical and lacking in context. Many students understand the concept of waqf in general but still have difficulty connecting it to the real situation in Islamic family property management. In this case, the use of AI is seen as having the potential to help improve student understanding through digital simulation, interactive visualization, learning chatbots and real-life situation-based learning.

Although research on the use of Artificial Intelligence (AI) in education is growing, most discussions are still focused on the fields of general education, science, technology and language learning. Studies that specifically focus on the integration of AI in Islamic education are still limited, especially in the teaching of Fiqh Muasarah which requires students to be able to analyze current legal issues critically and contextually. In addition, discussions on the use of AI in improving family waqf literacy are also still lacking, while family waqf requires practical understanding of asset management, inheritance and the development of Islamic family legacy. Therefore, there is a need to develop a smart Islamic learning framework that systematically integrates AI, digital pedagogy, Fiqh Muasarah and family waqf literacy. Based on the problems discussed, this study aims to identify the potential use of Artificial Intelligence (AI) in supporting the teaching and learning of Muasarah Fiqh and family waqf in higher education. In addition, this study also analyzes the role of digital pedagogy and smart learning ecosystem in creating a more interactive, flexible and student-centered Islamic education learning experience. In this regard, this study also develops the conceptual framework of FiqhMu AI as a smart learning system that integrates AI technology, Islamic digital pedagogy and family waqf literacy in a more systematic and contextual way.

To achieve this goal, this study focuses on several main questions, namely how AI technology can support the teaching and learning of Muasarah Fiqh and family waqf more effectively and contextually, what are the main elements of the smart learning ecosystem that are suitable for application in Islamic education, and how the conceptual framework of FiqhMu AI can contribute to the development of Islamic digital pedagogy that is more interactive, responsive and in line with the needs of today's digital student generation. In this regard, this study discusses the conceptual development of FiqhMu AI as a smart learning system that integrates AI technology in the teaching of Muasarah Fiqh and family waqf. This system is proposed as an Islamic pedagogical innovation that can help improve students' understanding of contemporary issues through more interactive, visual and real-life situation-based learning.

Literature review

Artificial Intelligence in education

Artificial Intelligence (AI) refers to the ability of computer systems to perform functions that typically require human intelligence such as reasoning, learning, language processing and problem solving. In the field of education, AI is increasingly being used to support the teaching and learning process through the development of smart tutor systems, adaptive learning, educational chatbots and assessment automation (Chen et al., 2020). According to Holmes et al. (2022), AI has the potential to help create more personalized learning experiences because the system can identify the level of understanding, needs and achievement of individual students. Through this approach, learning content can be adapted according to student abilities, thus helping to increase engagement and self-directed learning. A systematic study by Zawacki-Richter et al. (2019) found that the use of AI in higher education is growing rapidly, especially in the aspects of adaptive learning, learning analytics and assessment automation. The use of this technology helps educational institutions provide learning experiences that are more flexible and responsive to the needs of today's students. In addition, the development of generative AI such as ChatGPT has also brought about major changes in the education sector. According to Dwivedi et al. (2023), generative AI helps students generate ideas, understand complex concepts and support the learning process in a more interactive way. This technology also gives students the space to explore information more quickly and flexibly. However, the use of generative AI also raises several concerns regarding the accuracy of information, academic ethics, plagiarism and dependence on technology. In the context of modern pedagogy, AI is seen as able to support a student-centered learning approach. Students are no longer just passive recipients of information, but are more actively involved in the process of knowledge exploration, problem solving and collaborative learning. Therefore, the use of AI in education does not just involve the use of technology, but also influences the pedagogical approach and the overall learning experience.

Smart learning ecosystem in higher education

The concept of smart learning ecosystem refers to the development of a learning ecosystem that integrates digital technology, data analytics and Artificial Intelligence (AI) to create a smarter, more flexible and responsive learning experience to students' needs. Smart learning ecosystem does not just involve the use of technology as a teaching aid, but also includes the development of a learning environment that is able to

adjust content, methods and learning experiences based on student behavior and performance (Hwang and Tu, 2021). According to Hwang and Tu (2021), smart learning emphasizes elements of adaptive learning, real-time learning and contextual learning. This approach allows students to follow the learning process according to their level of understanding and ability more flexibly. At the same time, smart technology also helps lecturers monitor student progress and identify learning weaknesses more systematically. In addition, the development of smart learning ecosystem also supports the student-centered learning approach that is increasingly being given attention in higher education. According to Zhu et al. (2016) the use of smart technology in education helps increase student engagement through interactive learning, digital simulation and collaborative learning. This approach makes students more active in the process of exploring knowledge and solving problems compared to traditional learning approaches that are passive.

In the context of Islamic education, the development of a smart learning ecosystem is very important to help explain abstract concepts in a more visual and contextual way. The use of digital simulations, interactive visualizations and educational chatbots can help students understand current fiqh issues more easily and closer to the reality of life. This approach also has the potential to help improve students' understanding of the application of sharia principles in real situations. In addition to helping improve student understanding, the smart learning ecosystem also provides space for more flexible and continuous learning. Students can access learning materials, run simulations and interact with the learning system at any time according to their needs. Therefore, the development of a smart learning ecosystem is seen in line with the needs of today's higher education which emphasizes flexible, interactive and digital technology-based learning.

Digital transformation in Islamic education

Digital transformation in Islamic education has grown more rapidly, especially after the COVID-19 pandemic, which accelerated the use of technology in the teaching and learning process. The use of digital platforms such as Google Classroom, Moodle and Microsoft Teams has become increasingly widespread in the teaching of Islamic studies in higher education institutions. This development shows that digital technology is increasingly becoming part of the current Islamic education ecosystem. However, most Islamic studies courses still rely heavily on traditional pedagogical approaches that are oriented towards lectures and theoretical presentation. Such approaches certainly have value in the tradition of Islamic scholarship, but in the context of today's digital generation learning, more interactive and flexible methods are increasingly needed to increase student engagement and understanding. According to Bond et al. (2021), the use of digital technology in education helps increase student interaction, motivation and involvement in the learning process. At the same time, digital learning also provides space for the implementation of self-directed, collaborative and flexible learning without being tied to the physical space of the classroom. Dhawan (2020) also explained that digital transformation in higher education has become increasingly important after the COVID-19 pandemic because technology helps ensure the continuity of the teaching and learning process in a more open and accessible way.

In the context of Islamic education, the use of digital technology can help lecturers explain abstract concepts in a more visual and contextual way. Digital technology also helps students gain wider access to learning resources, scholarly discussions and

reference materials in a more open and fast way. This situation is in line with the development of current higher education which emphasizes flexible learning and lifelong learning. In addition, the current generation of students is more inclined towards visual, interactive and technology-based learning compared to passive learning approaches that only rely on lectures. Therefore, digital transformation in Islamic education does not just involve the use of technology but also requires changes in pedagogical approaches so that the learning process becomes more dynamic, contextual and relevant to current developments.

Family waqf and Islamic asset management literacy

Family waqf is one of the important instruments in the economic development of Muslims and the continuous preservation of family assets. Family waqf does not only function as a welfare mechanism, but also plays a role in the development of family legacy, asset protection and long-term benefit guarantee to the heir generation. In the context of the Islamic economy, family waqf is seen as able to contribute to social stability and strengthening the economic well-being of the Muslim community on an ongoing basis. However, the level of public understanding of family waqf is still at a moderate level. Many people are still confused about the basic concept of family waqf including its difference with hibah, faraid and wasiat. This confusion has caused the potential of family waqf as an instrument of Islamic economic development to still not be optimally utilized. According to Kasri and Chaerunnisa (2022), the level of knowledge and understanding has a significant relationship with the willingness of the community to be involved in waqf activities. The higher a person's level of understanding of the concept and management of waqf, the higher their tendency to actively participate in waqf instruments. Rahman et al. (2022) also explained that the level of literacy and awareness of the community towards waqf still needs to be strengthened through a more systematic and easy-to-understand educational approach. In the context of higher education, students need a learning approach that helps them understand Islamic asset management in a more realistic and contextual way. The use of digital simulation, interactive visualization and AI technology is seen as having the potential to help students understand how family waqf can be applied in the management of Islamic family assets, inheritance and legacy development in a more systematic way. This approach can also make learning about waqf more practical and closer to the real situation of the community.

AI Chatbots and interactive learning

The development of chatbot technology based on Artificial Intelligence (AI) has opened up new spaces in the world of education, especially in supporting interactive learning and self-directed learning. Educational chatbots allow students to interact with learning systems in real time and obtain immediate feedback without having to rely entirely on lecturers. This technology is gaining increasing attention because of its ability to help increase access to learning in a more flexible and responsive manner. A study by Okonkwo and Ade-Ibijola (2021) shows that educational chatbots have the potential to increase learning interactions, self-directed learning and access to information faster. In addition, the use of chatbots in education is growing because technology is able to support interactive learning and two-way communication between students and the learning system. According to Tlili et al. (2023), the use of AI chatbots

in education can help improve the learning experience through more active interaction between students and the learning system. Students can ask questions, obtain explanations and conduct self-directed learning more flexibly according to their needs. At the same time, AI chatbots also help increase student motivation and engagement in the learning process. In addition, AI chatbots also support student-centered learning approaches because this technology provides students with the opportunity to explore information and obtain explanations more quickly. The use of educational chatbots also helps reduce dependence on passive learning that only focuses on traditional lectures.

In the context of Islamic education, AI chatbots have the potential to be used to help explain fiqh terms, legal arguments, scholarly views and legal applications to current issues. This technology helps students gain faster access to information and learning resources in a more interactive and contextual way. This approach is seen as in line with the needs of teaching Fiqh Muasarah which involves various contemporary issues and current changes that are constantly evolving. However, the use of AI chatbots in Islamic education needs to be carefully monitored to ensure the accuracy of legal content and the validity of the reference sources used. A chatbot system that is not properly monitored risks producing information that is misleading or contradicts sharia principles. Therefore, the development of Islamic education chatbots requires collaboration between technology experts, academics and sharia scholars to ensure that the content produced is more accurate, authentic and suitable for use in the context of Islamic education.

Ethics of Artificial Intelligence (AI) in Islamic education

The use of Artificial Intelligence (AI) in Islamic education not only involves aspects of technology and learning effectiveness, but is also closely related to issues of ethics, trust and accuracy of knowledge (*Table 1*). In the context of Islamic education, the use of AI needs to be implemented carefully to ensure that the content produced is in line with sharia principles and does not cause confusion regarding Islamic law. The development of generative AI such as ChatGPT and educational chatbots certainly helps to accelerate access to information and support students' self-learning. However, AI technology also has several limitations such as the risk of producing inaccurate information, algorithmic bias, misinterpretation of the law and excessive user dependence on technological systems. In the context of Fiqh Muasarah, inaccuracy of legal information can have major implications for the understanding and practice of the Muslim community. In addition, the use of AI in Islamic education needs to consider the values of etiquette, trust and moral responsibility in the learning process. AI technology cannot completely replace the role of lecturers, sharia scholars and the human guidance process in the delivery of Islamic knowledge. Instead, AI should be seen as a pedagogical support tool that helps to enhance the learning experience in a more interactive and flexible way. Therefore, the development of smart Islamic learning systems such as FiqhMu AI requires continuous monitoring from academics, technology experts and syariah scholars to ensure that the content produced is more accurate, authentic and in line with the maqasid syariah. This approach is important to ensure that the digital transformation of Islamic education remains centered on the values of ethics, manners and integrity of knowledge. Overall, the literature review shows that the use of AI in education has great potential in supporting interactive, adaptive and student-centered learning. However, studies related to the integration of AI in Islamic education, especially in the context of Fiqh Muasarah and family waqf, are

still quite limited. Therefore, the development of FiqhMu AI is proposed as a smart Islamic learning framework that integrates AI technology, digital pedagogy and family waqf literacy in a more systematic and contextual manner.

Table 1. *Literature synthesis related to AI and Islamic education.*

Author	Research Focus	Main Findings	Relevance to FiqhMu AI
Chen et al. (2020)	AI in education	AI supports adaptive learning and learning analytics	Supports the development of intelligent learning systems
Zawacki-Richter et al. (2019)	AI in higher education	AI is widely applied in adaptive learning and assessment automation	Demonstrates the potential of AI in higher education
Holmes et al. (2022)	AI and education	AI supports personalized learning	Relevant to student-centered learning approaches
Hwang (2022)	Smart learning ecosystem	Smart learning enhances flexibility and contextual learning	Forms the foundation for smart learning development in FiqhMu AI
Okonkwo and Ade-Ibijola (2021)	Educational chatbot	Chatbots improve interaction and self-directed learning	Supports the development of Islamic educational chatbots
Tlili et al. (2023)	ChatGPT in education	Generative AI enhances interactive learning but raises ethical concerns	Highlights the need for AI monitoring in Islamic education
Kasri and Chaerunnisa (2022)	Waqf literacy	Knowledge influences community participation in waqf	Supports the integration of family waqf literacy in FiqhMu AI
Rahman et al. (2022)	Waqf awareness	Public awareness of waqf remains at a moderate level	Indicates the need for more interactive waqf learning approaches
Bond et al. (2021)	Digital transformation in education	Digital technology increases student engagement	Supports Islamic digital pedagogy
Dwivedi et al. (2023)	Generative AI and education	AI facilitates knowledge exploration but raises academic ethical issues	Supports discussions on AI ethics in Islamic education

Materials and Methods

This study uses a conceptual qualitative approach through document analysis and systematic literature review. This approach was chosen because the study aims to develop a conceptual framework for FiqhMu AI in the context of Muasarah Fiqh education and family endowment. The conceptual approach is suitable for use in describing the relationship between Artificial Intelligence (AI) technology, digital pedagogy and Islamic education more comprehensively and systematically (Jaakkola, 2020).

Data sources and literature search strategies

Study data was obtained from secondary sources consisting of Scopus and Web of Science (WoS) indexed journal articles, academic books, conference proceedings and research reports related to AI in education, Islamic digital pedagogy, adaptive learning, educational chatbots and family endowment literacy. Source selection focused on publications between 2019 and 2025 to ensure that the study findings are current and relevant to the latest developments in educational technology. Literature review was conducted systematically using several major databases such as Scopus, ScienceDirect, Emerald Insight and Google Scholar. Among the keywords used in the literature search process were “Artificial Intelligence in Education”, “Islamic Digital Pedagogy”, “Smart Learning Ecosystem”, “Contemporary Fiqh Education”, “AI Chatbot in Education” and “Family Waqf Literacy”. The search process was conducted based on the suitability of the theme, focus of the study and its relevance to the development of digital Islamic education. To ensure the accuracy and relevance of the sources, this study set several

criteria for literature selection. Selected articles must discuss at least one of the main elements, namely AI in education, digital pedagogy, smart learning ecosystem, Muasarah Fiqh education or family waqf literacy. In addition, only academic articles with clear methodology and discussion were selected for analysis. Articles that were not directly related to education or the use of technology in Islamic learning were not included in this study.

In total, 40 academic articles and documents were analyzed to identify the main themes related to the integration of AI in Islamic education. The data were analyzed using a thematic analysis approach to systematically identify, organize and interpret theme patterns from the analyzed literature sources (Braun and Clarke, 2019). Among the main themes identified are the potential of AI in education, adaptive learning, educational chatbots, smart learning ecosystems, pedagogical challenges of Fiqh Muasarah, family endowment literacy and the ethics of using AI in Islamic education. Based on these themes, a conceptual framework of FiqhMu AI was developed to explain how AI technology can be integrated into the teaching of Fiqh Muasarah and family endowment in a more systematic, interactive and contextual way. This framework is also proposed as an initial basis for the development of a smart Islamic learning system that is more responsive to the needs of today's digital generation of students.

Fiqhmu AI conceptual framework

FiqhMu AI is proposed as a smart learning system that integrates Artificial Intelligence (AI) technology in Muasarah Fiqh and family endowment education. This system does not just function as a regular e-learning platform but is developed as an interactive learning ecosystem that helps students understand contemporary fiqh concepts in a more contextual, visual and applicative way. The development of this framework also considers the elements of adaptive learning, student-centered learning and the integration of smart technology in higher education (Zhu et al., 2016). The FiqhMu AI conceptual framework consists of several main components that complement each other to support the teaching and learning process of Muasarah Fiqh and family endowment in a more systematic and interactive way.

Adaptive learning module

The adaptive learning module allows the system to identify the level of student understanding based on the performance of quizzes, exercises and learning interactions. Based on this data, the system will suggest appropriate learning content according to the level of mastery and individual needs of students. This adaptive learning approach helps ensure that the learning process occurs in a more structured, flexible and personalized way (Hwang and Tu, 2021). For example, students who are having difficulty with the topic of family waqf will be given additional materials in the form of asset management simulations, inheritance visualizations and training related to Islamic family legacy development. This approach helps students understand the application of family waqf in a more practical and contextual way.

Islamic education chatbot

FiqhMu AI also contains an Islamic education chatbot that allows students to ask real-time questions related to fiqh and family waqf. This chatbot helps explain fiqh

terms, legal arguments, scholarly views and current legal applications in a more interactive and easy-to-understand way. In addition, this chatbot also helps students conduct self-learning without being overly dependent on formal lecture sessions. Chatbot technology makes learning more flexible, responsive and easily accessible at any time according to students' needs. The use of educational chatbots has also been found to have the potential to increase student engagement and self-learning in digital education (Tlili et al., 2023; Okonkwo and Ade-Ibijola, 2021).

Contemporary fiqh case simulation

FiqhMu AI provides case simulations related to current issues such as cryptocurrency, Islamic fintech, generative AI, blockchain, digital contracts and family waqf management. This simulation helps students understand how sharia principles are applied in real-life situations that occur in modern society. Through a case-based learning approach, students can improve their critical thinking skills, legal analysis and decision-making abilities based on sharia principles. Simulation and experiential learning approaches also help improve the application of knowledge in real-life situations and make learning more contextual and interactive (Kolb, 2015; Yadav et al., 2011).

Lecturer dashboard

FiqhMu AI also provides a special dashboard for lecturers to monitor student performance and development in real time. Through this dashboard, lecturers can identify student weaknesses, assess the level of mastery of certain topics, and provide academic interventions more effectively and systematically. In addition to assisting in the learning monitoring process, this dashboard also makes it easier for lecturers to produce teaching materials, quizzes, exercises, and case simulations more quickly and systematically. The use of learning analytics in education helps lecturers monitor learning more systematically and based on data (Chen et al., 2020). This approach helps support the implementation of digital teaching in Islamic education more effectively. Overall, the FiqhMu AI conceptual framework was developed to support the development of a smart learning ecosystem in Islamic education that is more interactive, responsive, and relevant to the needs of today's digital generation.

FiqhMu AI conceptual model

The FiqhMu AI conceptual model was developed to explain the relationship between AI technology, Islamic digital pedagogy, and learning outcomes in Muasarah Fiqh education and family endowments. This model emphasizes the integration between elements of smart technology, interactive learning, and real-world situation-based education to create a more responsive and student-centered digital Islamic learning ecosystem. This model is developed based on four main components, namely input, process, output and outcome. The input component includes basic elements that support system development such as AI technology, Islamic digital pedagogy, Muasarah Fiqh content and family waqf literacy. These elements form the basis for the development of a smart learning system that is more contextual and relevant to the needs of Islamic education today. At the process level, FiqhMu AI integrates several main components such as adaptive learning modules, Islamic education chatbots, contemporary fiqh case simulations and lecturer analytics dashboards. These components function to support a

more flexible, interactive and personalized learning process according to the level of student understanding.

Next, the output component refers to the direct results of using the system such as increased student engagement, self-learning, interactive learning, critical thinking and contextual understanding of current fiqh issues and family waqf. This approach helps students understand the application of sharia principles in real situations in a more practical and systematic way. Finally, the outcome of this model is the formation of a smart Islamic learning ecosystem that supports the digital transformation of higher education. The FiqhMu AI model is expected to help strengthen contemporary fiqh and family endowment literacy among students as well as support the development of digital Islamic pedagogy that is more innovative, responsive and in line with the needs of today's digital generation. *Figure 1* shows the FiqhMu AI conceptual model proposed in this study.

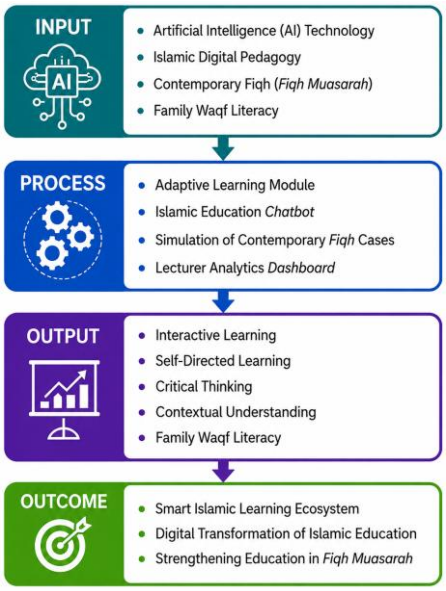

Figure 1. *FiqhMu AI conceptual model.*

Results and Discussion

Literature highlights show that the integration of Artificial Intelligence (AI) in education is able to support more interactive, flexible and student-centered learning. In the context of Fiqh Muasarah, the use of adaptive learning modules helps the system identify the level of student understanding and subsequently suggest appropriate learning content according to the individual's level of mastery. This approach helps support more personalized and systematic learning (Hwang and Tu, 2021). However, the effectiveness of adaptive learning in Islamic education cannot rely entirely on automation systems alone. In the context of Fiqh Muasarah, the learning process still requires the guidance of lecturers and authoritative sharia scholars to ensure that the legal understanding obtained by students is not too mechanical or separated from the context of maqasid sharia and the reality of current society. In addition, the use of case simulations in FiqhMu AI helps students understand the application of sharia principles to current issues such as cryptocurrency, Islamic fintech, generative AI and family waqf management in a more contextual way. Case-based and experiential learning

approaches help improve students' critical thinking and ability to make legal analysis based on the principles of usul fiqh and maqasid syariah (Kolb, 2015; Yadav et al., 2011). At the same time, contemporary fiqh case simulations also require the development of a valid legal database and syariah references to avoid legal interpretation errors by AI systems. This is important because issues such as cryptocurrency, generative AI and digital contracts are constantly evolving and involve differences of opinion among current Islamic scholars.

The study also highlights that the use of AI chatbots can help improve self-learning and student engagement in Islamic education. Educational chatbots allow students to obtain immediate feedback on fiqh terms, legal arguments and current legal applications without relying too much on formal lecture sessions. The use of chatbots in education also helps make learning more flexible and accessible (Tlili et al., 2023; Okonkwo and Ade-Ibijola, 2021). In the context of family waqf, the use of AI not only helps to improve Islamic property management literacy through digital simulation and inheritance visualization, but also has the potential to make waqf learning more contextual and easy to understand for the younger generation. This approach is important because one of the main challenges in waqf education is the difficulty of students in understanding the practical application of family waqf in real-life situations. Therefore, the use of smart technology is seen as being able to bridge the gap between fiqh theory and the reality of current Islamic property management. In addition, the use of learning analytics and automated assessments helps lecturers monitor student development more systematically and based on data. AI systems allow feedback to be given immediately to students, thus helping the learning improvement process continuously (Chen et al., 2020). In addition to the aspect of learning effectiveness, the integration of AI in Islamic education also brings changes to the traditional pedagogical approach which was previously more oriented towards lectures and theory delivery. This change shows that today's Islamic education requires a more flexible, interactive and experience-based approach to learning. In this regard, FiqhMu AI has the potential to be a medium that helps students connect sharia principles with current issues in a more critical, reflective and contextual way. However, the use of AI in Islamic education also poses several challenges such as the risk of inaccuracy of legal content, ethical issues in the use of AI and technology dependency among students. Therefore, the development of an AI-based Islamic education system needs to involve continuous monitoring from sharia scholars, academics and technology experts to ensure that the content produced remains accurate and in line with sharia principles.

Study implications

This study provides several important implications for the development of Islamic education in the era of digital transformation. From a theoretical perspective, this study contributes to the expansion of literature related to the integration of AI in Fiqh Muasarah and family endowment education, which is still under-discussed in previous studies. The conceptual development of FiqhMu AI also strengthens discussions related to smart learning ecosystems and Islamic digital pedagogy in higher education. From a practical perspective, FiqhMu AI has the potential to be used as a smart learning platform that helps lecturers provide adaptive learning, case simulations, educational chatbots and automatic assessments more systematically. The use of this technology also helps improve family endowment literacy and Islamic property management among students through a more contextual and interactive learning approach. In addition, this

study also shows that higher education institutions need to be prepared to develop a digital Islamic education ecosystem that is more responsive to current technological developments. The integration of AI in Islamic education is not intended to replace the role of lecturers, but functions as a pedagogical support tool to strengthen students' learning experiences.

Although FiqhMu AI has the potential to strengthen Fiqh Muasarah and family endowment education, there are several challenges that need attention. Among them are the issues of accuracy of legal content, ethics of AI use, technology dependency and digital infrastructure constraints in educational institutions. Therefore, the development of an AI-based Islamic education system requires multidisciplinary collaboration between technology experts, academics and Sharia scholars to ensure that the developed system is more accurate and in line with Sharia principles. This study also has several limitations because it is conceptual in nature and does not involve the development of an actual system or empirical testing of users. Therefore, future studies are recommended to develop a prototype of FiqhMu AI and assess the level of user acceptance among lecturers and students using a quantitative approach or educational experiments. Studies related to the ethics of AI in Islamic education also need to be strengthened to ensure that the use of technology is always centered on the values of etiquette, trust and moral responsibility. This study shows that the integration of AI in Islamic education helps strengthen the pedagogy of Fiqh Muasarah and family endowment through adaptive learning, educational chatbots, case simulations and learning analytics. FiqhMu AI is proposed as an early model of smart Islamic pedagogy that supports the digital transformation of Fiqh Muasarah and family endowment education in higher education.

Conclusion

This study discusses the conceptual development of FiqhMu AI as a smart learning framework that integrates Artificial Intelligence (AI) technology, Islamic digital pedagogy and family endowment education in the context of Muasarah Fiqh. Based on the literature review and conceptual analysis conducted, the use of AI was found to have significant potential in supporting more interactive, adaptive and student-centered learning through the use of educational chatbots, contemporary fiqh case simulations, learning analytics and experiential learning. In the context of Islamic education, the development of FiqhMu AI is seen not only as a technological innovation, but also represents a transformation of pedagogical approaches that are more responsive to societal changes and the needs of today's digital student generation. The integration of smart technology in Muasarah Fiqh and family endowment education has the potential to help students understand the application of sharia principles in a more contextual, practical and closer to current reality. However, the use of AI in Islamic education needs to be implemented with caution to ensure the accuracy of legal content, the preservation of adab values, the ethics of using technology and the supervision of sharia scholars are always given attention. In this regard, AI should not be seen as a replacement for the role of lecturers and scholarly authorities, but rather as a pedagogical support tool that helps strengthen the learning experience in a more flexible and effective way. Overall, FiqhMu AI is proposed as an initial model of a smart Islamic learning ecosystem that supports the digital transformation agenda of Islamic education in higher education. This study also opens up space for further research related to the development of system

prototypes, empirical testing of users, acceptance of technology in Islamic education, and the development of a more comprehensive AI ethical framework based on the principles of maqasid syariah and the values of contemporary Islamic education.

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Conflict of interest

The authors confirm that there is no conflict of interest involved with any parties in this research study.

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