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Islamic Human Capital Model Based on Sharia Economics and SDGs: A Study at Abdullah Al Busyroni Tahfiz Al-Qur'an Islamic Boarding School

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Abstract

Objective: This study aims to develop an Islamic Human Capital strengthening model through Sharia economics education integrated with the Sustainable Development Goals at the Abdullah Al Busyroni Tahfiz Al-Qur'an Islamic Boarding School, Serdang Bedagai, North Sumatra. **Theoretical framework:** The framework integrates Islamic Human Capital, Sharia economics education, and sustainable development, emphasizing spiritual values, intellectual capacity, social responsibility, and productive competencies. **Literature review:** Previous studies have examined Islamic education, character development, entrepreneurship, and SDGs separately. Limited research has explored their integration into a comprehensive model of Islamic Human Capital development in Islamic boarding schools. **Methods:** This study employs qualitative applied research using Participatory Action Research. Data were collected through interviews, observations, documentation, and Focus Group Discussions, then analyzed using Miles, Huberman, and Saldaña's interactive model. **Results:** The findings reveal integration through fiqh *muamalah*, Islamic business principles, syirkah, *mudharabah* simulations, cooperative management, and environmentally responsible practices. The proposed model comprises four components: Religious Capital, Intellectual Capital, Social Capital, and Productive Capital, supported by three pillars: Spiritual Capital, *Fikriyah* Capital, and *Amaliyah* Capital. Teachers, administrators, and students contribute as facilitators, coordinators, and active participants, respectively. **Implications:** The model offers guidance for integrating Islamic values, economic competencies, and sustainability into pesantren education, although systematic validation remains necessary. **Novelty:** This study introduces an integrated Islamic Human Capital model connecting religious integrity, intellectual development, social engagement, and productive capabilities within an SDG-oriented Sharia economics education framework.

Keywords: islamic education, human capital, islamic boarding school, sharia economics, sdgs

INTRODUCTION

The development of globalization and socio-economic transformation today has had a significant impact on the world of education, including Islamic education in Indonesia. Islamic

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educational institutions are required to produce graduates not only with academic excellence but also with religious character, adaptive skills, and economic competencies relevant to the needs of modern society [1]. In this context, strengthening the quality of human resources has become a strategic issue that continues to receive attention, particularly through the development of human capital based on Islamic values, or Islamic Human Capital. This concept combines aspects of spirituality, morality, knowledge, skills, and productivity within the framework of Islamic teachings [2].

The concept of Islamic Human Capital is important because Islamic education has often emphasized cognitive aspects and religious rituals over strengthening economic capacity, entrepreneurship, and sustainable development literacy. Islam, however, not only regulates the relationship between humans and God but also regulates social and economic activities that are just and oriented toward the welfare of the community [3]. Therefore, Islamic education requires a new, more integrative approach to produce a generation of Muslims who are both spiritually pious and socially and economically competitive.

In the context of national development, the quality of human resources is a key factor in determining the nation's progress. The Indonesian government continues to promote the strengthening of character education, financial literacy, and the development of 21st-century skills through various educational policies [4][5]. However, the implementation of education that integrates Islamic values, Islamic economics, and sustainable development remains relatively limited, particularly in madrasahs (Islamic schools) and Islamic boarding schools (pesantren). This situation highlights the gap between the goals of Islamic education and the global challenges facing today's young generation.

The existence of the Sustainable Development Goals as a global development agenda has also provided a new direction for education. The SDGs emphasize the importance of quality education, poverty reduction, inclusive economic growth, social equality, and sustainable development. These values are fundamentally closely linked to the principles of Islamic economics, which emphasize justice, balance, sustainability, and social responsibility [6]. Therefore, integrating the SDGs into Islamic economics education is a strategic step in developing a generation of Muslims with social awareness and the ability to face global challenges. Sharia economics education plays a crucial role in shaping students' economic mindsets and behaviors in accordance with Islamic principles. This education not only addresses the theoretical aspects of Islamic economics but also instills the values of business ethics, honesty, responsibility, hard work, and concern for the welfare of society. Thus, Sharia economics education can be a key instrument in building quality Islamic Human Capital.

However, in reality, Islamic economics instruction in many madrasas and Islamic boarding schools remains theoretical and not fully integrated with the social needs of society or the sustainable development agenda. Learning focuses more on understanding the concepts of Islamic jurisprudence (*fiqh*) and transactions, without accompanying practical economic empowerment and strengthening life skills. As a result, students lack the ability to optimally apply Islamic economic values in their daily lives. Furthermore, the challenges of modernization and the development of digital technology have also brought about changes in the mindsets of the younger generation of Muslims. The rapid flow of information often influences a consumerist, individualistic, and materialistic lifestyle. This situation has the potential to weaken students' moral and spiritual values if not balanced with strong character education. Therefore, Islamic educational institutions need to provide an educational model that integrates spiritual, intellectual, social, and economic aspects in a balanced manner.

Madrasas and Islamic boarding schools play a strategic role in shaping the character of the Muslim generation. Pesantren serve not only as religious educational institutions but also as centers for moral, social, and cultural development in the community [7]. Throughout history, Islamic boarding schools have played an important role in building the independence of the community through values-based education and community empowerment [8]. Therefore,

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strengthening Islamic Human Capital through Islamic boarding schools is highly relevant in facing future development challenges.

The urgency of this research is further strengthened by reviewing various empirical indicators that show the persistent gap between the development of Islamic Human Capital and the achievement of Sustainable Development Goals (SDGs) in the education sector. Although the government has encouraged the improvement of human resource quality by strengthening character education, literacy, and 21st-century competencies, the implementation of these policies in Islamic educational settings, particularly madrasas and Islamic boarding schools , has not fully integrated the spiritual dimension, Islamic economics, and sustainable development comprehensively. On the other hand, achieving the SDGs, particularly Goal 4 (Quality Education), Goal 8 (Decent Work and Economic Growth), and Goal 12 (Responsible Consumption and Production), requires the support of an education system capable of developing religious, productive, adaptive, and competitive human resources. This situation indicates a gap between the demands of national development and the practice of Islamic education in the field, thus necessitating a model of Islamic economic education that can strengthen the capacity of Islamic Human Capital while supporting the achievement of the SDGs.

In this context, the Abdullah Al Busyroni Islamic Boarding School (Madrasah Pondok Pesantren Tahfiz Al-Qur'an) in Serdang Bedagai Regency, North Sumatra, is a relevant location to study the development of an SDGs-based Islamic economics education model. As a tahfiz educational institution, this Islamic boarding school not only emphasizes mastery of the Quran but also strives to shape the character and independence of students through various development programs. However, strengthening SDGs-based Islamic economics education within the Islamic boarding school environment still requires a more systematic, integrated, and applicable model. The absence of a learning model that specifically links Islamic economics education with sustainable development indicators has resulted in suboptimal implementation. This situation presents both a challenge and an opportunity to formulate an innovative, contextual education model that is appropriate to the needs of Islamic Human Capital development in the madrasah and Islamic boarding school environment.

This research was motivated by the researcher's curiosity about how Islamic economics education can be an effective tool in developing Islamic human capital in madrasah students. The researcher saw an urgent need to present an Islamic education concept that is not only oriented toward religiosity but also able to enhance students' economic competence and social awareness. This research is also based on the assumption that integrating SDGs values into Islamic economics education can strengthen students' character in facing the challenges of globalization. The values of sustainability, social justice, and environmental responsibility embodied in the SDGs are believed to align with Islamic principles and therefore can be internalized within the Islamic boarding school education system.

Research on Islamic Human Capital is still relatively limited, particularly that linking Islamic economics education to the SDGs in the context of Islamic boarding schools (pesantren). Most previous studies have focused on character education, Islamic economics, or sustainable development separately. Therefore, this study offers novelty in integrating these three aspects into a single conceptual model. This research is also crucial because Islamic education requires innovative, contextual learning models that are responsive to current developments. Educational models that emphasize memorization without strengthening social and economic skills have the potential to produce graduates who are ill-prepared to face the realities of modern life. Therefore, an educational model that connects spiritual values with practical competencies is needed. From a social perspective, this research is expected to contribute to strengthening the quality of the younger generation of Muslims in North Sumatra, particularly Serdang Bedagai Regency. Strengthening Islamic Human Capital in madrasahs and Islamic boarding schools (pesantren) can be a strategic step in creating productive,

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independent, and integrated human resources. This research is also relevant to the direction of national education development, which emphasizes the importance of character education and strengthening religious moderation. SDGs-based Islamic economics education can serve as a learning medium that encourages students to be tolerant, socially aware, and responsible towards their surroundings.

LITERATURE REVIEW

The concept of Islamic Human Capital emphasizes that human resource development, from an Islamic perspective, is not only oriented toward improving intellectual competence and work skills, but also encompasses strengthening spirituality, morality, ethics, and social responsibility. This concept evolved from the human capital theory proposed by Gary Becker and was then integrated with Islamic values that position humans as caliphs on earth [9]. From an Islamic perspective, human quality is measured not only by economic productivity but also by the ability to uphold the values of justice, trustworthiness, ethics, and social welfare. Therefore, Islamic Human Capital is a crucial foundation for developing a generation of Muslims who excel academically, religiously, and socially [10].

According to Syed Nawab Haider Naqvi, human development in Islam must integrate economic, spiritual and moral aspects into a unified system of life [11]. Islamic education is seen as a primary instrument in shaping individuals who possess a balance between intellectual intelligence and social piety. In the context of this research, strengthening Islamic Human Capital is achieved through Islamic economics education, which instills the values of productivity, responsibility, honesty, and social awareness in madrasah students.

The theory of Islamic economic education emphasizes that economic activity in Islam is not solely oriented towards material gain but also aims to achieve social justice and shared prosperity. Muhammad Umer Chapra explains that Islamic economics is built on the principles of monotheism, justice, balance, and sustainability [12].Sharia economic education therefore has a strategic function in shaping students' economic behavior to be in accordance with sharia principles, such as the prohibition of usury, honesty in transactions, social responsibility, and fair distribution of wealth. In the context of education, Vygotsky's social constructivism theory emphasizes that the learning process takes place through social interactions and the real experiences of students [13]. Islamic economics learning in madrasas is not merely theoretical; it needs to be developed through entrepreneurial practices, Islamic financial literacy, and the practice of Islamic economic behavior in everyday life. This approach allows students to understand the values of Islamic economics in a contextual and practical way.

SDGs provide a new direction for the development of sustainable education. The SDGs are a global development agenda that emphasizes quality education, poverty reduction, inclusive economic growth, and sustainable social and environmental development. From an Islamic perspective, these goals are relevant to the principle of maqasid sharia, which aims to safeguard religion, life, intellect, posterity, and wealth for the benefit of humanity. According to Jeffrey Sachs, sustainable development must be built through integration between economic growth, social welfare, and environmental preservation [14]. In the context of Islamic education, SDG integration can be realized through learning that instills the values of social responsibility, environmental stewardship, sustainable entrepreneurship, and Sharia-based economic ethics. Therefore, SDG-based Sharia economic education is a strategic approach to developing a generation of Muslims who are adaptive to global challenges without abandoning their Islamic identity.

The school-based management theory developed by Caldwell and Spinks emphasizes the importance of educational institution autonomy in managing resources and developing learning innovations according to environmental needs [15]. In this study, madrasas and Islamic boarding schools (pesantren) have strategic opportunities to develop SDG-based Islamic economics education through curriculum, entrepreneurship programs, character

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development, and community-based social activities. This approach strengthens madrasas' position as independent and innovative centers for the development of Islamic education.

The theory of good governance put forward by Nag emphasizes the principles of transparency, accountability, participation, effectiveness and fairness in the management of institutions [16]. In developing Islamic economics education in madrasas, this principle is crucial for ensuring a professional and sustainable educational process. The involvement of teachers, students, parents, and the community is crucial for creating a quality education system that is responsive to social needs. Elinor Ostrom, through her theory of collective action, explains that the successful management of shared resources is largely determined by active community participation and clear institutional rules [17]. In this study, strengthening Islamic Human Capital is understood as the result of collaboration between madrasas, Islamic boarding schools, families, and the community in building an educational environment that supports the formation of Islamic character and economic competence in students.

The theory of participation put forward by Sherry Arnstein through the ladder of citizen participation explains that the success of an education program is greatly influenced by the level of community involvement [18]. In the context of Islamic boarding schools (pesantren), community participation is not merely symbolic but must be realized through active partnerships in supporting Islamic economic education programs and student character development. Meanwhile, Douglass North, through his theory of institutional change, explains that social change occurs through the transformation of formal and informal rules within institutions [19]. In this study, the development of an SDGs-based Islamic economics education model is understood as a form of institutional innovation in Islamic education aimed at sustainably improving the quality of Islamic human resources.

METHODOLOGY

This study uses a qualitative approach with an innovative applied research type based on Participatory Action Research (PAR) to develop a model for strengthening Islamic Human Capital in madrasa students through sharia economic education based on the Sustainable Development Goals (SDGs) [20]. The research was conducted at the Abdullah Al Busyroni Tahfiz Al-Qur'an Islamic Boarding School, Serdang Bedagai Regency, North Sumatra, which was selected purposively based on its relevance to the research focus. The research stages include preliminary studies, needs identification, field data collection, model development, expert validation, limited implementation, evaluation, and model refinement. Research informants were selected by purposive sampling, including the head of the madrasah, teachers, Islamic boarding school managers, students, and parents of students. The research focused on the integration of Islamic economic education with strengthening Islamic character, Islamic economic literacy, social awareness, independence, entrepreneurship, and sustainable development values in the Islamic boarding school educational environment [21].

Data collection was conducted through observation, in-depth interviews, documentation, and Focus Group Discussions (FGDs) to obtain information on educational practices, student capacity development needs, and supporting and inhibiting factors for model implementation. Data were analyzed using the interactive analysis model of Miles, Huberman, and Saldaña, which includes data condensation, data presentation, and drawing and verifying conclusions [22]. The analysis results were used as the basis for developing a model that integrates spiritual, moral, intellectual, social, and economic productivity dimensions within the Islamic Human Capital framework. The model was then validated through expert judgment and stakeholder input, and then implemented on a limited basis to obtain evidence regarding its feasibility, implementation, and development potential. Data validity was strengthened through source triangulation, technical triangulation, and member checking. The final results of the study are expected to produce a contextual, applicable, and replicable model for strengthening Islamic

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Human Capital based on Islamic economics education and the SDGs in other Islamic educational institutions [23].

RESULTS AND DISCUSSION

Strengthening Islamic Human Capital in Madrasah Education

Strengthening Islamic Human Capital in madrasah education is a process of developing human quality that integrates spiritual values, morals, knowledge, skills, and independence in a single educational unit. Based on research data at the Abdullah Al Busyroni Tahfiz Al-Qur'an Islamic Boarding School in Serdang Bedagai Regency, North Sumatra, the development of Islamic human capital is directed so that mastery of religious knowledge is inseparable from the ability to face social and economic issues. This direction is evident in interviews with Islamic boarding school students who emphasize that students are not enough to just master the memorization of the Qur'an, but also need to have the ability to face the realities of society. In the informant's view, Islamic Human Capital integrates *quwwah*, namely capability or competence, with *amanah* as the foundation of moral integrity. The findings of this interview indicate that strengthening student quality is understood not solely as academic or religious achievement, but as the formation of individuals who have both competence and responsibility in using their abilities.

This perspective can be analyzed through the human capital theory developed by Theodore W. Schultz and Gary S. Becker . Schultz views education as a form of investment that enhances human capacity, while Becker explains the role of education and training in developing knowledge and productive skills [24][25]. In the context of the Islamic boarding schools studied, this perspective is expanded through the integration of Islamic values as the basis for the use of competencies. This means that the development of economic and intellectual capabilities is not only directed at increasing productivity but must also consider honesty, justice, trustworthiness, and social welfare. Thus, the contribution of madrasah education lies in its efforts to link the development of human capacity with the moral orientation that underlies behavior. This perspective helps explain why religious education, practical skills, and social responsibility need to be placed within the framework of Islamic Human Capital development, rather than as stand-alone educational goals.

The spiritual dimension is a crucial foundation within this framework because it provides a value orientation for the knowledge and skills students develop. Interview data with students indicate that memorizing the Quran is positioned as spiritual capital that needs to be linked to an understanding of life, including the principles of fair dealing. This orientation demonstrates that memorizing the Quran is not only understood as the achievement of memorization, but also as a source of values to guide social and economic behavior. In this context, spiritual strengthening can be interpreted as a process that connects understanding of religious teachings with an awareness of responsible action. However, mastery of memorization and internalization of values are two things that need to be distinguished in the analysis. Success in memorization does not in itself prove that all values have been applied in daily life; this relationship needs to be seen through observed behavior, student experiences, and statements from educators.

To illustrate the educational practices implemented at the Abdullah Al Busyroni Quran institution, direct classroom observations were conducted during regular study sessions. The learning environment emphasizes disciplined religious instruction, collective focus, and close teacher supervision to help students master their lessons effectively. The specific classroom setting and student learning activities are shown in Figure 1.

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Figure 1. Activities of students at the Abdullah Al Busyroni Quran

As shown in Figure 1, the students sit comfortably on the tiled floor in a semicircular formation facing their teacher, who uses a wooden stand at the front. Wearing traditional skullcaps and modest attire, they use small colorful plastic stools as low desks to hold open religious texts and notebooks. Several learners are actively writing notes while following the lesson, demonstrating an attentive, structured, and supportive learning atmosphere that fosters discipline and academic engagement during daily classes.

This spiritual dimension is closely related to the formation of Islamic character, particularly honesty, trustworthiness, justice, discipline, and concern for others. In interviews with teachers of Islamic jurisprudence (*fiqh muamalah*) and entrepreneurship, learning about buying and selling and partnerships is not solely focused on calculating profits, but also emphasizes the prohibition of tadlis (fraud), the issue of inequality, and the importance of distributing zakat (alms) and sadaqah (charity). This information demonstrates that moral values are placed as part of economic discussions, providing students with the opportunity to understand that economic activity has an ethical dimension. Analytically, this is important because Islamic character is not only related to adherence to religious norms but also to the ability to apply those norms when faced with practical choices and interests. Sharia economic education can thus provide a learning space for understanding the relationship between beliefs, behavior, and the social consequences of actions.

Character formation can also be explained through Albert Bandura's social learning theory, which emphasizes the role of observation, imitation, and environmental interaction in the learning process [26]. In madrasah and Islamic boarding schools (pesantren), values such as trustworthiness and responsibility can be learned through teacher explanations, but also through role models and practices that occur in community life. Therefore, the integration of moral values into learning materials needs to be reinforced through experiences that allow students to see the application of these values. This activity demonstrates an effort to connect Islamic economic principles with contextual issues, allowing students to discuss the values of cooperation and responsibility in a practical scenario. However, to assess the extent to which these activities shape character, additional evidence is needed regarding the discussion process, student engagement, and their post-activity reflections.

Strengthening Islamic Human Capital requires the development of knowledge and thinking skills that enable students to understand the relationship between religious principles and the realities of life. Interview data with teachers indicates that learning combines the study of religious texts (*tafaqquh fiddin*) with a project-based learning approach. In the fiqh *muamalah* (Islamic jurisprudence) course, students are introduced to issues of buying and selling, partnerships, business ethics, and social distribution. This approach demonstrates an effort to move religious material beyond conceptual understanding to analysis of issues

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encountered in society. Pedagogically, the combination of principle study and project-based learning opens up opportunities for students to understand the rationale behind a provision, identify problems, and consider alternative solutions. Thus, knowledge within the Islamic Human Capital framework refers not only to the amount of information mastered but also to the ability to connect that knowledge to responsible decision-making .

This approach aligns with constructivist thought, which views learning as an active process of building understanding through experience, interaction, and reflection. In the context of this study, group discussions and simulations of *mudharabah* (profit-sharing) contracts serve as a means to provide contextual learning experiences. Students do not merely learn Islamic economic terminology, they are also guided to consider how a partnership scheme might be applied to the financing needs of farmers in the Sei Rampah region [27]. Such activities have the potential to develop analytical skills, as students must connect concepts such as contractual agreements, principles of justice, economic needs, and responsibilities toward others with one another. Nevertheless, the success of this approach cannot be determined solely by the presence of projects or discussions. A more robust analysis must account for the quality of the students' arguments, their grasp of the principles being studied, and their ability to articulate the rationale behind the decisions they make.

Practical skills represent another dimension evident in the orientation toward developing "Islamic Human Capital" within pesantren (Islamic boarding schools). The mudir (head of the pesantren) explains that Islamic economic education is intended to serve as a form of skill-based capital, while teachers describe how the pesantren's own business units are used to examine economic circulation and the impact of business activities on the community and the environment. Observational data also highlight the existence of a pesantren cooperative, which utilizes simple digital record-keeping, supplies basic necessities and handicrafts produced by the santri (students), and according to field notes applies pricing deemed to be fair. This information points to an institutional context that can be leveraged to explore skills in business management, transaction recording, transparency, and ethical considerations within economic activities.

From an educational perspective, the pesantren's business environment serves as a potential source of authentic learning, as students can observe the connections between the principles studied in the classroom and the actual management of economic activities.These economic skills become more meaningful when developed alongside an understanding of the needs of the local community. In interviews, teachers linked learning to the characteristics of the Serdang Bedagai region, which has an agrarian economy, and encouraged students to consider the possibility of creating jobs and managing business waste. This orientation broadened students' understanding that economic activity is not only related to business profits but also to its impact on society and the environment. Within the Islamic Human Capital framework, skills thus encompass both technical abilities and the ability to assess the social consequences of economic actions. Linking material to the local context is also relevant for problem-solving education, as students can learn concepts through issues close to their own environment. However, the available data primarily reflect the learning approach and orientation; students' mastery of skills still needs to be assessed through work results, demonstrations, or verifiable learning evaluations.

Economic independence is an aspect related to students' ability to use knowledge and skills responsibly. In interviews with students, the goal of developing students was formulated through the concept of Hafidz Sociopreneur, namely individuals who possess a strong spiritual foundation as well as the ability to live independently and provide social benefits. Observational notes on Islamic boarding school cooperatives, including digital record-keeping and the allocation of a portion of profits to cross-subsidize the education costs of underprivileged students, provide a concrete context for discussing the relationship between economic activity, governance, and social solidarity. These practices can be used as learning materials regarding resource management, transparency, and the use of business proceeds for

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the common good. However, the existence of a cooperative is not sufficient to conclude that students have achieved economic independence. Assessment of this dimension requires considering students' actual involvement, the types of responsibilities they are given, the skills they have mastered, and their decision-making abilities appropriate to their developmental level [28].

Independence is also related to the formation of social capital, namely the ability to build relationships, collaborate, and participate in community life. Teachers in interviews directed students' attention to the possibility of economic activities creating employment opportunities for local residents and managing the environmental impact of business activities. Meanwhile, FGD notes included responses from student representatives connecting Islamic economics learning to community life, including concern for river cleanliness and the issue of financing small businesses at risk of becoming entangled in loan sharks. These statements demonstrate that discussion participants viewed education as a means of connecting religious knowledge with social benefits. In the research analysis, social capital can be understood as a complementary dimension to individual skills: students learn not only to develop their own abilities but also to consider the needs and interests of others. However, these FGD statements should be understood as participants' perspectives, not evidence that small business assistance programs or river restoration activities have been implemented.

The Islamic Human Capital dimension in this study also includes responsibility for health and environmental sustainability. Based on interviews with students, the Islamic boarding school has received a Healthy Islamic Boarding School Certificate from the Serdang Bedagai District Health Office. Informants attributed this achievement to education on *thaharah* (cleanliness), water use, sanitation, and the prohibition of waste. Observation notes also describe a clean dormitory and madrasa environment, segregated trash bins, and maintained access to water for ablution. These data demonstrate a relationship between the instillation of religious values and environmental management in Islamic boarding school life. From an SDG perspective, these practices are relevant to the goals of good health and well-being (SDG 3), access to clean water and sanitation (SDG 6), and responsible consumption and production (SDG 12). Thus, Islamic character can be studied not only through an individual's relationship with religious teachings, but also through responsibility for the environment and shared facilities [29].

The link between Islamic human capital development and the SDGs is further explained through the principle of maqasid sharia, namely the orientation toward safeguarding human welfare through the protection of religion, life, intellect, descendants, and property. In interviews, the student uses this framework to explain the compatibility of Islamic values with the sustainable development agenda. Analytically, this framework can help connect spiritual education with intellectual development, health protection, resource management, and economic responsibility. However, the relationship between maqasid sharia and the SDGs should be understood as a conceptual intersection, not as an assumption that they have entirely identical foundations and scopes. In the context of madrasah education, this principle can serve as a basis for selecting learning activities that are appropriate to the needs of students and the local environment. This approach also demonstrates that sharia economics education has the potential to provide an ethical framework for developing economic skills that address the well-being of individuals and society.

The description of these dimensions is reinforced by the results of the FGDs included in the research document. During the discussion, the principal proposed three pillars of strengthening: Spirituality, *Fikriyah*, and *Amaliyah*. The Spirituality pillar relates to the internalization of religious values through thematic memorization (tahfiz), the *Fikriyah* pillar relates to contextual Islamic economic learning, while the *Amaliyah* pillar emphasizes involvement in cooperative activities and the Healthy Islamic Boarding School program. This formulation can be interpreted as an effort to connect belief, thought, and practice within an

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educational framework. All three are also related to the dimensions of Islamic Human Capital discussed previously: Spirituality serves as the foundation of values, *Fikriyah* develops knowledge and thinking skills, while *Amaliyah* opens up space for the application of knowledge and the cultivation of responsibility. Although the FGDs contained expectations regarding improved morals, financial intelligence, and social awareness, these expectations need to be distinguished from the results that have been proven through evaluation.

From a methodological perspective, the findings from interviews, observations, and focus group discussions (FGDs) need to be analyzed in an integrated manner so that model development does not rely solely on the perspective of a single informant. Following the Participatory Action Research (PAR) approach, the experiences of madrasah principals, teachers, Islamic boarding school administrators, and students can be used to identify needs, formulate priorities, and refine educational designs. In the condensation stage, information can be grouped into themes of spirituality, morality, knowledge, skills, independence, and social awareness. Next, interview results are compared with observation notes and discussion results to check for consistency and identify areas requiring clarification. Triangulation and member checking are also important to ensure that the researcher's interpretations do not go beyond the information provided by the informants. In this way, the developed model can be empirically grounded while also considering the experiences and needs of all parties involved in education.

Integration of SDGs-Based Islamic Economic Education in Student Competency Development

The integration of Islamic economics education based on the Sustainable Development Goals (SDGs) is an educational approach that links understanding the principles of Islamic transactions with the development of students' economic competence, social responsibility, and sustainable behavior. In the context of the Abdullah Al Busyroni Tahfiz Al-Qur'an Islamic Boarding School, this integration is relevant because education is not only directed at mastering religious knowledge, but also at students' ability to understand economic and social issues in their surroundings. Interviews with the boarding school's leadership demonstrated the importance of developing students who are not only capable of memorizing the Qur'an but also possess the ability to face socio-economic realities. This idea aligns with Schultz's human capital theory, which views education as an investment in increasing human knowledge and ability to carry out their productive functions. From an Islamic educational perspective, this competency development must go hand in hand with the development of moral character and responsibility [30].

Sharia economics education has characteristics that distinguish it from economics education that is solely oriented towards material gain. Sharia economics education places honesty, justice, trustworthiness, and the prohibition of economic practices that harm others as the fundamental principles of economic activity. Chapra emphasized that the Islamic economic system needs to be understood in relation to the goal of realizing human welfare and social justice, not simply increasing wealth [12]. These principles can serve as a foundation for students to understand that economic activities must take into account the processes and impacts they generate . Interviews with teachers of Islamic jurisprudence (*Fiqh*) and entrepreneurship at the research site revealed that topics on buying and selling, *syirkah* (Islamic partnership), and the prohibition of *tadlis* (fraud) were introduced as part of the learning process. These data demonstrate an effort to link understanding of *muamalah* concepts with the development of honest and responsible economic behavior.

The integration of Islamic economics education and the SDGs can also be understood through the concept of sustainable development, which balances economic, social, and environmental dimensions. The United Nations, through Transforming Our World: The 2030 Agenda for Sustainable Development, places poverty eradication, quality education, decent work, responsible consumption, and environmental protection as part of the global development agenda. In madrasah education, these goals do not have to be taught as

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development concepts separate from religious teachings. Instead, the values of the SDGs can be linked to Islamic principles of justice, responsibility as a caliph, prohibition of causing harm, and the obligation to avoid wasteful behavior. Thus, students can understand that the teachings of *muamalah* have practical relevance to issues of poverty, inequality, environmental cleanliness, and the sustainability of economic activities.

One important form of integration is the development of Islamic economic literacy competencies. This literacy is not limited to memorizing terms such as buying and selling, syirkah, zakat, and sedekah, but also encompasses the ability to explain principles, assess problems, and make responsible economic decisions. Lusardi and Mitchell explain that financial literacy plays a role in helping individuals make more informed financial decisions [31]. In the madrasah context, this concept can be expanded to include an understanding of sharia-compliant transactions, managing pocket money, planning needs, recording income and expenses, and recognizing risks in simple economic activities. Thus, students are expected to be able to connect economic knowledge with real-life behavior, not just understand concepts theoretically. Beyond daily classroom instruction, institutional development requires structured coordination and strategic capacity building among educators and administrators. Regular collaborative meetings are conducted to align educational goals, enhance leadership competencies, and foster sustainable organizational growth. The formal discussion session held as part of the ongoing activities to strengthen Islamic human capital is presented in Figure 2.



Figure 2. Activities to strengthen Islamic human capital

As shown in Figure 2, administrators and staff members gather around a large conference table inside a formal meeting room to discuss institutional development programs. Two facilitators seated at the front lead the session before a whiteboard, while male and female participants listen attentively and actively exchange ideas. This structured forum reflects a strong institutional commitment to enhancing professional competence, ethical leadership, and collaborative governance as essential pillars for strengthening Islamic human capital across the educational organization.

From a learning strategy perspective, the integration of Islamic economics and the SDGs can be strengthened through Project-Based Learning (PjBL). Thomas explains that project-based learning places projects as a central part of the learning process, enabling students to engage in investigations, problem-solving, and product or solution development. This approach aligns with practices found in research observations, including student group discussions on the prohibition of environmental damage and the design of *mudharabah*-based microfinance simulations for local farmers in Sei Rampah. These activities combine the concept of Islamic economic contracts with the productivity issues of agrarian communities.

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Pedagogically, such simulations have the potential to develop analytical, communication, collaboration, and problem-solving skills. However, these observational data are more appropriately understood as evidence of contextual learning practices, rather than as measurable evidence that students' competencies have significantly improved [32].

Entrepreneurial competencies are also a crucial component of integrating Islamic economics education into SDGs-based programs. Entrepreneurship in Islamic education is not solely aimed at developing the ability to generate profits, but also fosters creativity, independence, honesty, and a concern for community needs. Neck and Greene emphasize the importance of an entrepreneurial approach as a learning process that encourages action, experimentation, and reflection, not just mastery of business theor . In the context of this research, learning about *syirkah* and *mudharabah* can serve as a foundation for introducing business cooperation, role allocation, capital management, and inter-party responsibilities. If developed gradually through simple, age-appropriate projects, this approach can serve as a means to foster an entrepreneurial spirit grounded in Islamic ethics.

Observational findings regarding Islamic boarding school cooperatives provide a concrete illustration of the possibility of linking learning to everyday economic practices. These cooperatives reportedly provide basic necessities and handicrafts at reasonable prices, use simple digital financial records, and allocate a portion of profits to help cover the education costs of underprivileged students. This practice demonstrates that economic activity can simultaneously serve as a learning space for transaction recording, service delivery, pricing, business management, and social solidarity. According to Kolb, direct experience is a crucial element in learning because it can be reflected upon and processed into new understandings [33]. Based on this perspective, Islamic boarding school cooperatives have the potential to become laboratories for learning Islamic economics if students are actively involved, supervised by teachers, and given the opportunity to reflect on the relationship between *muamalah* principles and business management practices.

The social dimension of SDG-based Islamic economics education can be developed through an understanding of zakat, almsgiving, distributive justice, and responsibility toward groups in need. Sen, through a capability approach, views development as an expansion of substantive human freedom to live a valuable life [34]. This perspective is relevant for broadening students' understanding that economic success is measured not only by wealth ownership but also by the ability to participate in social life and provide benefits to others. In teacher interview data, the topic of zakat and almsgiving is linked to the issue of economic inequality, while observations of cooperatives indicate the allocation of a portion of profits to help finance the education of underprivileged students. These two findings illustrate the relationship between *muamalah* learning, social solidarity, and efforts to support SDG 1 on poverty alleviation and SDG 10 on inequality reduction.

The development of students' economic competencies also needs to be linked to local economic potential and needs. Serdang Bedagai Regency has an agrarian community context that can be used as a contextual learning resource, for example through discussions of agricultural business financing, business cooperation, agricultural product marketing, and responsible capital management. Lave and Wenger's situated learning approach emphasizes that learning becomes meaningful when knowledge is learned in relation to social practices and the context in which it is used [35]. In this study, teachers connected Islamic economics learning to the economic conditions of the surrounding community, including the needs of farmers and small businesses. One FGD participant also assessed that learning linked to real-life issues, such as helping small traders avoid burdensome lending practices, made memorizing the Quran more meaningful. These findings indicate that the local context can bridge religious knowledge, economic understanding, and concern for community welfare.

The environmental aspect is another dimension that demonstrates the connection between Islamic principles and the SDGs. In observational data, students discussed Quranic verses prohibiting causing damage to the earth and connecting this to responsible consumption and

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production. The madrasah and dormitory environments were also observed to be clean, with separate bins for organic and non-organic waste and attention to the use of water for ablution. These practices are relevant to SDG 6 on clean water and sanitation and SDG 12 on responsible consumption and production. UNESCO emphasizes that education for sustainable development needs to build knowledge, skills, values, and attitudes that encourage students to act responsibly towards the environment and society. Thus, the habit of maintaining cleanliness, conserving water, and avoiding wasteful behavior can be understood as part of character education as well as sustainable behavior training.

Integrating SDG 3, concerning healthy and prosperous living, with Islamic economics education can be achieved through the development of clean living habits, an understanding that health is part of well-being, and the management of a healthy learning environment. Research documents indicate that Islamic boarding schools hold a Healthy Islamic Boarding School Certificate from the Serdang Bedagai District Health Office. Observation notes also mention well-maintained environmental conditions and careful attention to the use of ablution water to prevent waste. This data demonstrates the existence of an institutional environment that supports healthy and responsible behavior. However, the link to economic competencies needs to be explicitly established through learning about the social costs of an unhealthy environment, the importance of maintaining shared facilities, and the relationship between health, productivity, and well-being. In this way, students can understand that sustainable development is not only related to economic activities but also to the conditions that enable individuals and communities to live decent lives.

From a social learning perspective, student competency development is also influenced by the behavioral examples displayed by teachers, leaders, and Islamic boarding school administrators. Bandura explains that individuals can learn behavior through observing models, then develop these behaviors through the processes of attention, information retention, reproduction, and motivation [26]. In the context of this research, the principle of honesty in transactions will be more easily understood if it is not only explained through material but also exemplified in cooperative management, financial record keeping, pricing, and customer service. Similarly, the value of environmental responsibility becomes more concrete when students witness waste separation and efficient water use in everyday life. Therefore, consistency between the material taught and the institutional culture is a crucial element to ensure that SDGs-based Islamic economics education does not remain merely normative knowledge.

Strengthening student competencies also requires the ability to use technology wisely in economic activities. The use of simple digital financial record-keeping in Islamic boarding school cooperatives, as noted in observations, can be a starting point for introducing administrative skills, accuracy, transparency, and accountability. The OECD defines financial literacy as a combination of awareness, knowledge, skills, attitudes, and behaviors necessary for making sound financial decisions [36]. In the madrasah context, the digital aspect can be expanded through exercises in recording transactions, calculating capital and profits, distinguishing needs from wants, and verifying transactions' compliance with sharia principles. These competencies are crucial for preparing students for an increasingly digitalized economic environment, while also instilling an understanding that technological conveniences must be accompanied by honesty, prudence, and information protection.

Based on the FGD results, the integration of Islamic economics education and the SDGs can be developed through three complementary dimensions: Spiritual, *Fikriyah*, and *Amaliyah*. The Spiritual dimension emphasizes strengthening spiritual values through the appreciation of Quranic verses related to economic and environmental justice. The *Fikriyah* dimension is directed at conceptual understanding through contextual Islamic economics learning, while the *Amaliyah* dimension places students in real-world experiences through involvement in cooperatives and the Healthy Islamic Boarding School activities. This

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arrangement aligns with Mezirow's idea of transformative learning, which emphasizes the importance of critical reflection in changing one's perspective [37]. In its application, students are not only asked to understand transaction rules, but also to reflect on the ethical reasons behind those rules and practice them in their daily lives. Thus, the integration of the three dimensions can connect knowledge, values, and actions in developing student competencies.

The research results show that SDGs-based sharia economic education at the Abdullah Al Busyroni Tahfiz Al-Qur'an Islamic Boarding School has a practical basis that can be developed through *muamalah* learning, *mudharabah* financing simulations, cooperative activities, social awareness, and the habit of maintaining cleanliness and the environment. These practices are related to the development of intellectual competence, economic skills, social responsibility, and sustainable behavior. Conceptually, this integration supports SDG 4 on quality education, SDG 8 on decent work and economic growth, SDG 12 on responsible consumption and production, and SDG 3 and SDG 6 on health and sanitation.

Model of Strengthening Islamic Human Capital for Madrasah Students

The model for strengthening Islamic Human Capital for students of the Abdullah Al Busyroni Tahfiz Al-Qur'an Islamic Boarding School in Serdang Bedagai Regency was developed by integrating Al-Qur'an education, sharia economics education, Islamic character building, productive skills, and sustainable development values (Sustainable Development Goals/SDGs). This model departs from the understanding that the quality of human resources is not sufficiently built through mastery of religious knowledge, but also requires intellectual competence, moral integrity, social skills, and economic independence. Schultz (1961) views education as an investment in increasing human capacity, while Becker (1964) explains that knowledge and skills are important parts of human capital that contribute to productivity. In the context of Islamic boarding schools, this perspective needs to be expanded with the spiritual and ethical dimensions of Islam so that competency development is not only directed at economic productivity, but also at trustworthiness, justice, and welfare. Thus, the developed model places the formation of humans who are knowledgeable, moral, skilled, and beneficial to society as the main goal.

Conceptually, this model can be structured through four interrelated components: Religious Capital, Intellectual Capital, Social Capital, and Productive Capital. Religious Capital refers to the internalization of Qur'anic values, disciplined worship, honesty, and trustworthiness as the basis for student behavior. Intellectual Capital encompasses mastery of Islamic economic concepts, financial literacy, critical thinking skills, and an understanding of the SDGs. Social Capital relates to the ability to collaborate, concern for others, and responsibility towards the environment and community. Meanwhile, Productive Capital encompasses entrepreneurial skills, simple financial record keeping, creativity, and the ability to manage economic activities in accordance with Islamic principles. This division represents a conceptual synthesis based on research focus and field findings, not a standard instrument that has been statistically proven. Theoretically, Becker's concept of human capital supports the dimensions of knowledge and skills [38][28][25], while Coleman explains the importance of social capital in supporting individual actions through relationships, norms, and trust [39][40].

The first component, Religious Capital, serves as the foundation that distinguishes the Islamic Human Capital strengthening model from human resource development models that emphasize only technical skills. Tahfiz education is not only directed at memorizing the Quran, but also at appreciating values relevant to economic behavior, social justice, and environmental conservation. Interview data with Islamic boarding school leaders demonstrates the idea that students ideally should not stop at memorizing, but also be able to deal with socio-economic realities. This idea aligns with character education, which places moral knowledge, moral feelings, and moral actions as interconnected elements [41][42]. In implementing the model, teachers can connect Quranic verses to concrete issues, such as the prohibition on fraud,

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the importance of trustworthiness in transactions, the obligation to help those in need, and the prohibition on causing damage to the earth. Through this process, religious values are expected to become the basis for students' considerations when making decisions, not simply memorized material.

The second component is Intellectual Capital, which is the development of students' knowledge and reasoning skills through contextual Islamic economics education. Learning encompasses the principles of buying and selling, *syirkah* (Islamic partnership), *mudharabah* (*Islamic mudharabah*), the prohibition of tadlis (Islamic zakat), and an introduction to zakat and almsgiving (*sadaqah*) in relation to economic justice. Teachers not only explain the definitions and provisions of contracts but also guide students in analyzing examples of transactions and economic issues they encounter in their environment. This approach aligns with Anderson and Krathwohl's learning taxonomy, which places the ability to understand, apply, analyze, evaluate, and create at the cognitive level [43]. Thus, students can be guided to compare fair and unfair transactions, explain the risks of fraud, or create simple business simulations based on Islamic principles. Developing this intellectual dimension can also connect economics material with the SDGs, enabling students to understand the relevance of religious knowledge to issues of poverty, decent work, consumption, and environmental sustainability.

The third component, Social Capital, focuses on developing social responsibility, trust, cooperation, and environmental stewardship. In this model, social values are not only taught through advice but also reinforced through shared habits and student involvement in madrasah and pesantren activities. Coleman explains that social relationships, norms, and trust can serve as resources that facilitate coordination and collective action [40][39]. This relevance is evident in research data on clean pesantren environments, the separation of organic and non-organic waste, attention to water use, and cooperatives whose profits are reportedly used to help cover the education costs of underprivileged students. These practices can serve as reflections for understanding solidarity, responsibility for shared facilities, and the importance of wise resource management. Through collaborative activities, students are expected to develop the social competencies needed to participate positively in community life [44].

The fourth component, Productive Capital, focuses on students' ability to transform knowledge into practical skills that have economic value and remain grounded in Islamic ethics. This dimension can be developed through an introduction to entrepreneurship, cooperative management, transaction recording, capital and profit calculations, and business financing simulations. Research observation data noted the existence of Islamic boarding school cooperatives with simple digital financial records, sales of basic necessities and crafts, and fair pricing. The existence of these practices opens up opportunities for cooperatives to function as learning laboratories, as long as student involvement is tailored to their age, abilities, and educator supervision. Kolb, through his experiential learning theory, explains that learning occurs through concrete experience, reflection, concept formation, and active experimentation [33]. Based on this theory, students can learn financial record keeping through practice, reflect on the results, understand business management principles, and then reapply them in simple projects. This model thus connects Islamic economic knowledge with productive skills training.

To synthesize these empirical findings into a structured educational framework, a comprehensive conceptual approach was formulated for madrasah students at Abdullah Al Busyroni Islamic Boarding School. This framework integrates spiritual, intellectual, and practical dimensions to systematically nurture holistic learner competencies. The structure of the Model of Strengthening Islamic Human Capital is illustrated in Figure 3.

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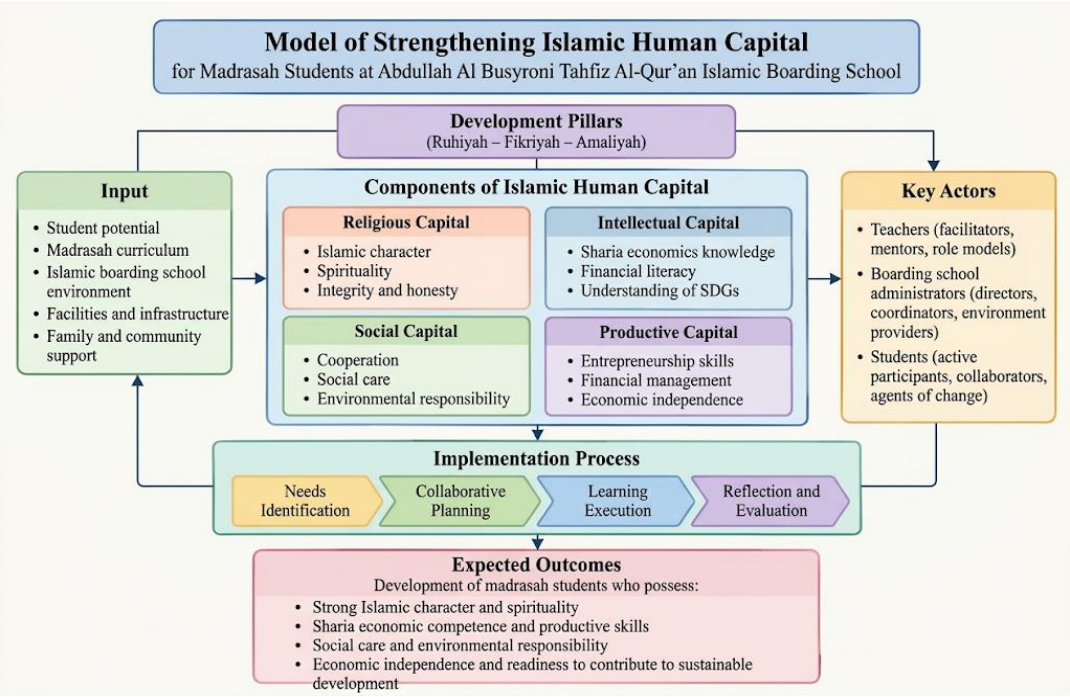


Figure 3. Model of Strengthening Islamic Human Capital

As shown in Figure 3, the model operates through spiritual, intellectual, and practical pillars connecting foundational educational inputs, core components, and primary actors, namely teachers, administrators, and students. It integrates religious, intellectual, social, and productive capital, encompassing Islamic character, Sharia economics, financial literacy, SDGs awareness, social care, and entrepreneurship. Implemented through needs identification, collaborative planning, learning execution, and continuous evaluation, this cycle shapes ethical and economically independent madrasah graduates prepared to contribute meaningfully toward sustainable global development.

The success of the model is largely determined by the teacher's role as a facilitator, moral guide, and liaison between religious knowledge and the realities of life. Tahfiz teachers can reinforce spiritual and moral values, while Fiqh *Muamalah* and entrepreneurship teachers help students understand the principles of transactions, business cooperation, and economic responsibility. Collaboration between teachers is necessary to prevent fragmentation of learning between religious lessons and practical knowledge. Shulman emphasized the importance of pedagogical content knowledge, namely the ability of educators to process subject matter so that it can be understood and learned by students effectively [45]. In the context of this research, this ability can be realized through the use of simple cases, discussions, simulations, group projects, and value reflection. Teachers also play a role in providing role models in honesty, discipline, resource utilization, and responsibility. Therefore, strengthening teacher capacity in contextual learning and competency evaluation is a crucial requirement in the model's implementation.

In addition to teachers, Islamic boarding school leaders and administrators play a strategic role in providing an institutional environment that supports the model's implementation. Islamic boarding school leaders are tasked with directing the vision, coordinating programs, fostering collaboration among teachers, and ensuring that Islamic economics education is connected to the Islamic boarding school's culture. FGD data suggests three proposed development pillars: Spirituality, *Fikriyah*, and *Amaliyah*. These three pillars can serve as an operational framework: Spirituality strengthens the appreciation of religious values, *Fikriyah* develops understanding and thinking skills, and *Amaliyah* provides space for practice and habituation. This approach aligns perspective on learning organizations, which emphasizes the

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importance of a shared vision, collective learning, and the organization's ability to continuously improve practices [46]. Within an Islamic boarding school environment, leadership that fosters collaboration can help transform Islamic economics education into more than just an additional program, but rather an integral part of the institution's learning culture.

Student engagement is another crucial element because strengthening Islamic Human Capital cannot be achieved solely through one-way delivery. Students need opportunities to identify problems, express opinions, develop solutions, implement activities, and evaluate their results. This aligns with Vygotsky's theory of social constructivism, which places social interaction and environmental support as crucial elements in the development of knowledge [47]. In practice, students can work in groups to analyze sample transactions, create simple budgets, design waste reduction activities, or discuss ways to help small businesses implement fairer transactions. The results of the focus group discussions (FGDs) in this study indicate that linking learning to local issuessuch as river cleanliness and the difficulties small businesses face in facing burdensome loans is seen as making Quranic learning more meaningful. These findings support the need for student participation in learning activities and Islamic boarding school life, although its impact on competency still needs to be systematically evaluated.

In terms of the implementation process, the model can be developed through sequential and interrelated stages. The first stage is needs identification, which involves mapping the initial conditions of students, existing learning practices, the potential of Islamic boarding schools, and economic and environmental issues surrounding the madrasah. The second stage is collaborative planning, where teachers and administrators develop objectives, materials, project activities, and achievement indicators based on the results of this mapping. The third stage is the implementation of learning through the integration of materials on memorization, *muamalah*, Islamic financial literacy, entrepreneurship, and the SDGs. The fourth stage is reflection and evaluation to identify areas that have gone well and areas that need improvement. These stages align with the characteristics of the Participatory Action Research (PAR) approach, which emphasizes the interconnectedness of planning, action, observation, and reflection in the cycle of practice improvement [48]. With this approach, the model is not treated as a rigid design, but as a process that can be refined based on the experiences and input of the madrasah community.

Learning methods that can support this model are Project-Based Learning and experiential learning. Thomas explains that project-based learning places projects as a central element of the learning process, enabling students to engage in inquiry and problem-solving [42][49]. Research observation data recorded group discussions on the prohibition of environmental damage linked to SDG 12, as well as the design of a *mudharabah*-based microfinance simulation for local farmers in Sei Rampah. These practices can be developed into learning projects with clear objectives, stages, task allocation, deliverables, and reflections. For example, students could create a simple business plan simulation that takes into account capital requirements, profit sharing, risks, and principles of fairness. For environmental projects, students could design a water-saving or waste management campaign accompanied by simple observations of Islamic boarding school practices. These projects should be selected based on their suitability to the students' age, resource availability, and learning objectives.

The integration of SDGs into the model needs to be done selectively and contextually to avoid simply labeling development goals. SDG 4 can be linked to the provision of meaningful and inclusive learning; SDG 8 to the introduction of entrepreneurship and productive activities; SDG 12 to the responsible management of consumption, waste, and resources; while SDG 3 and SDG 6 can be linked to health, hygiene, sanitation, and the wise use of water. UNESCO emphasizes that education for sustainable development needs to develop knowledge, skills, values, and attitudes that encourage responsible action [50]. Therefore,

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teachers need to explain the relationship between these development goals and Islamic values, such as trustworthiness, justice, welfare, and the prohibition of excess. By linking these values to real-life activities, students can see the SDGs not as a separate agenda from religious education, but as a framework for understanding the challenges of human and environmental well-being.

Supporting factors for implementing the model include a memorization-based educational environment, the involvement of leaders and teachers, the existence of Islamic boarding school cooperatives, and hygiene and health practices that can serve as learning resources. Existing activities provide the initial capital for developing experiential Islamic economics learning without having to constantly build new programs from scratch. From a whole-school perspective, UNESCO encourages the integration of sustainability education into learning, institutional governance, organizational culture, and community engagement [51][52]. This approach is relevant because students will more easily connect material to action if the values taught are also evident in institutional practices. For example, learning about trustworthiness and transparency can be linked to cooperative record-keeping, while discussions about responsible consumption can be reinforced through habits of reducing waste and conserving water. Thus, the Islamic boarding school environment serves not only as a place of learning but also as a space for cultivating values and competencies.

Despite its potential, the implementation of the model may also face a number of obstacles that require attention. Conceptually, these obstacles may include limited learning time, differences in students' initial abilities, teacher readiness to develop cross-disciplinary projects, the availability of learning resources, and the need to balance memorization activities with practical economic activities. However, these obstacles cannot be stated as confirmed empirical findings without being supported by informant information or specific observation notes. Supriyanto explains that educational change requires an understanding of the implementation process, the capacity of implementers, and organizational support; therefore, learning innovations are not simply designed but also require ongoing support and improvement [7]. To anticipate potential obstacles, the model can be implemented gradually through small-scale projects, joint development of teaching materials, utilization of existing resources, and regular coordination between Islamic boarding school leaders and teachers. This strategy needs to be adjusted to reflect the actual obstacles encountered during implementation.

Based on this description, the model for strengthening Islamic Human Capital in students at the Abdullah Al Busyroni Tahfiz Al-Qur'an Islamic Boarding School can be formulated as an integrative model that connects spiritual values, Islamic economic knowledge, social responsibility, and productive skills through contextual learning and real-life experiences. The four components Religious Capital, Intellectual Capital, Social Capital, and Productive Capital are strengthened through the role of teachers as facilitators and role models, Islamic boarding school leaders as institutional directors, and students as active participants in learning and practical activities. Meanwhile, the pillars of *Ruhiyah*, *Fikriyah*, and *Amaliyah* that emerged in the FGD can be used as a pathway for developing values, knowledge, and actions. This model is a conceptual synthesis of the research focus and available initial data, so it needs to be continuously examined through expert validation, stakeholder input, and limited implementation. With participatory refinement, the model is expected to help madrasas develop students who are not only strong in religious understanding, but also possess economic competence, moral integrity, social awareness, and responsibility for sustainable development.

CONCLUSION

This study concludes that strengthening Islamic Human Capital in students of the Abdullah Al Busyroni Tahfiz Al-Qur'an Islamic Boarding School in Serdang Bedagai Regency needs to be done through the integration of Al-Qur'an education, Islamic character building, Islamic economic education, and the values of the Sustainable Development Goals (SDGs). Human

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resource development in the madrasah environment is not only oriented towards mastering religious knowledge and memorizing the Al-Qur'an, but also needs to build intellectual competence, moral integrity, social awareness, and productive skills. In this context, the principles of *quwwah* (ability or competence) and *amanah* (integrity and responsibility) are the foundation for forming students who have spiritual strength and are able to face socio-economic problems in society. The integration of Islamic economic education and SDGs can be developed through *muamalah* learning, introduction to sharia-compliant transactions, *mudharabah* financing simulations, Islamic boarding school cooperative activities, social awareness, and the habit of maintaining cleanliness and the environment. These findings indicate practices that have the potential to support the development of Islamic economic literacy, entrepreneurial skills, collaboration, social responsibility, and sustainable behavior. The model can be formulated through four main components: Religious Capital, Intellectual Capital, Social Capital, and Productive Capital, implemented through the three pillars of Spirituality, *Fikriyah* (Islamic Education), and *Amaliyah* (Exercise). Successful implementation requires synergy between Islamic boarding school leaders, teachers, and students through contextual learning, hands-on practice, reflection, and continuous evaluation. Therefore, the Islamic Human Capital strengthening model based on Islamic economic education and the SDGs has the potential to become an approach to developing the competencies of madrasah students that integrates religious values, knowledge, economic skills, social responsibility, and environmental awareness. This model is expected to shape a generation that is morally upright, has Islamic economic literacy, is independent, productive, and able to contribute to sustainable development.

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Author Contribution

All authors contribute equally to the publication of this paper, all authors read and agree to this paper, and all authors declare no conflict of interest.

Conflicts of Interest

All authors declare no conflict of interest.

Use of Artificial Intelligence (AI)

AI assistance was used during revision for language editing, organization of the manuscript, clarification of conceptual distinctions, and checking selected bibliographic details. It was not used to generate participant accounts, field observations, consent records, or research results. The authors remain responsible for verifying the manuscript against the original research records and approving its scholarly interpretation.

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