Designing an Interdisciplinary TEL Framework Linking Islamic Studies, Social Studies, and English Proficiency for Sustainable Entrepreneurship

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Article Info	Abstract
	Entrepreneurship education in underdeveloped countries frequently emphasizes technical skills while undervaluing ethical reasoning, civic awareness, and communication abilities, limiting sustainability and inclusion. Although technology-enhanced learning (TEL) has gained popularity, current research focuses on entrepreneurial skill development in isolation, with little empirical integration of Islamic moral economy, Social Studies pedagogy, and English communication instruction. This study fills that gap by assessing an interdisciplinary TEL framework aimed to promote holistic entrepreneurial competences in Northern Nigeria. The study used a mixed-methods quasi-experimental approach and included 240 students and 24 teachers from secondary and postsecondary institutions. It compared a 12-week TEL intervention group (n=120) to a regular instruction group (n=120). Data were gathered using structured surveys, semi-structured interviews, and classroom observations, then analyzed using t-tests, ANOVA, regression analysis, and thematic coding with triangulation. TEL participants showed statistically significant improvements in self-reported entrepreneurial intention, ethical reasoning, digital literacy, and communication confidence. Qualitative data also indicate increased participation in ethical discussion, collaborative problem-solving, and digital business simulations. While the findings are context-specific and somewhat self-reported, they highlight the ability of interdisciplinary TEL models to improve inclusive and value-driven entrepreneurship education in resource-constrained contexts.

A. INTRODUCTION

Entrepreneurship is widely recognized as a key driver of long-term and inclusive economic development. International development institutions, such as the Organisation for Economic Cooperation and Development (OECD) and the World Bank, highlight its significance in job creation, innovation, and poverty alleviation (Nabi et al. 2018; Fayolle et al. 2006).

In Nigeria, where a rapidly growing youth population faces persistent unemployment and underemployment, entrepreneurship is increasingly viewed as a

strategic road to economic participation and social mobility (Muhammad Adamu et al. 2025). However, the developmental impact of entrepreneurship is determined not only by business formation rates, but also by the ethical orientation, social responsibility, and sustainability of entrepreneurial practices.

Despite this, entrepreneurial education in many developing countries remains narrowly focused on technical and management skills, frequently overlooking ethical reasoning, social awareness, and communicative fluency. Such fragmentation inhibits young entrepreneurs' ability to handle complicated moral quandaries, diversified marketplaces, and digitally mediated business environments.

In culturally diverse nations like Nigeria, where religious values, communal standards, and moral expectations impact economic life, excluding ethical and civic dimensions from entrepreneurial education risks undermining societal trust and long-term enterprise survival.

Technology-Enhanced Learning (TEL) has grown significantly as digital penetration has increased in Nigeria and Sub-Saharan Africa, providing scalable potential for immersive and interactive entrepreneurial education (Siew, 2025). TEL can go beyond content distribution by utilizing simulations, collaborative platforms, and digital mentorship to promote problem solving, innovation, and applied learning.

However, existing TEL-based entrepreneurship programs usually focus on technical skill acquisition in isolation, with little integration of moral frameworks, civic viewpoints, and structured communication training (Rideout, & Gray, 2013). The lack of a clear multidisciplinary model limits their transformative potential.

This study addresses this gap by developing and analyzing an interdisciplinary TEL framework for sustainable entrepreneurship that integrates Islamic Studies, Social Studies, and English skills. The study develops a holistic paradigm of ethical reasoning, sociocultural literacy, digital competence, and entrepreneurial ambition by incorporating ideas of Islamic moral economy, civic pedagogy, and professional communication into digitally mediated learning settings. As a result, it contributes to curriculum innovation targeted at developing inclusive and value-driven entrepreneurship in educational settings with limited resources.

The literature on entrepreneurial education emphasizes its strategic importance in socioeconomic development, especially in environments with significant youth unemployment and limited formal work alternatives. Research suggests that successful entrepreneurship education improves economic

participation, innovation, and resilience (Fayolle & Liñán 2014; Nabi et al. 2017). However, research shows that in developing economies, entrepreneurship curricula have traditionally prioritized technical and managerial competencies such as business planning, financial management, and marketing over broader cognitive and affective domains, such as ethical reasoning, sociocultural awareness, and communicative competence (Jones & Iredale 2010; Urbano et al. 2019).

The repercussions of this imbalance are significant: while students may learn procedural skills, they frequently lack the moral and intercultural competencies required to negotiate complicated market contexts, resolve ethical quandaries, and contribute to inclusive socioeconomic reform.

Emerging scholarship highlights the need for multidimensional entrepreneurship education models that incorporate higher-order cognitive capabilities, affective dispositions, and practical application (Martin et al. 2013; Rideout & Gray 2013). In this regard, the incorporation of ethical and civic dimensions has been connected to longer-term entrepreneurial outcomes such as social value creation, equitable participation, and responsible innovation (Morris et al. 2015; Santos 2012). However, despite normative calls for ethical entrepreneurship education, empirical evidence suggests that pedagogy is frequently rooted in traditional lecturing and technical skill transmission, with little integration of moral frameworks or cross-disciplinary perspectives (Gibb 2002; Nabi et al. 2018).

Technology-Enhanced Learning (TEL) has been advocated as a solution to these pedagogical restrictions by utilizing digital tools to promote engagement, collaboration, and applied learning (Fayolle, & Liñán, 2014; Dutsin-Amare et al. 2025). TEL comprises a variety of instructional technologies, such as online simulations, virtual labs, discussion platforms, and adaptive learning systems, all of which have been linked to better learning outcomes in higher education (Means et al. 2013; Dede 2014). TEL's ability to facilitate practical learning, real-world problem solving, and peer interaction distinguishes it as a potential approach to entrepreneurship education (Barba-Sánchez & Atienza-Sahuquillo 2018; Fayolle et al. 2020). However, studies on TEL in entrepreneurship contexts have mostly focused on information acquisition and learner satisfaction, with little emphasis on the integration of ethical reasoning, sociocultural awareness, and language-mediated communication skills (Abdulsalam et al. 2025; Urbano et al. 2019).

The importance of Islamic moral economy concepts in entrepreneurship education is a developing area of research, particularly in Muslim-majority countries like Nigeria. The Islamic moral economy, based on fairness ('adl), trust (amānah), and communal welfare, serves as a guideline for ethical business practices and equitable economic participation (Chapra 2008; Ahmed 2011; & Abubakar Muhammad et al. 2025). Scholars have claimed that incorporating Islamic ethical ideals into business education can improve students' moral judgment and social responsibility (Gibb 2002; Ali 2015). However, there is a gap in the literature for empirical models that operationalize Islamic moral economy within structured educational frameworks, and even fewer studies look at how these principles can be embedded alongside civic and communicative competencies in digitally mediated learning settings.

By emphasizing civic consciousness, societal interconnectedness, and contextualized problem resolution, social studies education adds new perspectives to the discussion of sustainable business. Social studies courses often require students to analyze social systems, governance frameworks, and community participation all of which connect with the societal implications of entrepreneurship. Research has shown that Social Studies has the potential to foster critical thinking and civic-mindedness in students, as well as the ability to grasp economic events in broader sociopolitical contexts (Nabi et al. 2017; & Muhammad et al. 2025). Nonetheless, the relationship between social studies and entrepreneurial education is underexplored, particularly within TEL frameworks.

English language and communication skills are widely recognized as critical to entrepreneurial success, especially in digitally mediated and globalized industries. Strong communication skills assist businesses to create value propositions, engage stakeholders, form collaborations, and participate in cross-border transactions (Chao et al. 2016; Siew 2025). In language education studies, digital tools have been demonstrated to facilitate interactive communication, peer feedback, and multimodal literacy (Darmanto et al. 2025). However, entrepreneurship education rarely emphasizes English literacy as part of integrated learning pathways, and TEL applications in this sector are frequently isolated from ethical and civic pedagogies (Abubakar et al. 2025).

In summary, the literature suggests significant fragmentation across three key domains relevant to sustainable entrepreneurship education: (1) entrepreneurship pedagogy's limited incorporation of ethical reasoning and sociocultural awareness; (2)

underutilization of TEL in fostering deep, interdisciplinary competencies; and (3) a lack of empirical models that integrate Islamic moral economy, Social Studies pedagogy, and English-mediated communication skills within a coherent This disparity is especially obvious in underserved and culturally varied contexts, such as Northern Nigeria, where entrepreneurship education is hampered by both institutional constraints and sociocultural complexity. The current study fills this gap by developing and testing an interdisciplinary TEL framework aimed to span various areas, thus enhancing both theory and practice in sustainable entrepreneurship.

B. RESEARCH METHODOLOGY

This study uses a mixed-methods methodology to assess the efficacy of an interdisciplinary TEL framework that combines Islamic moral economy, Social Studies, and English communication skills in fostering sustainable entrepreneurship. The study was done in secondary and postsecondary institutions in Northern Nigeria, with 240 students and 24 teachers participating. Participants were chosen using stratified random sampling to provide representation from all school types and areas.

In the experimental component, students were separated into two groups: TEL (120) and traditional education (120). The TEL intervention lasted 12 weeks, and students participated in digital learning modules that included entrepreneurial simulations, ethical reasoning exercises, civic case studies, and corporate communication activities. Structured questionnaires were used to assess entrepreneurial intention, ethical reasoning, digital literacy, and communication competence, semi-structured interviews with teachers to delve into pedagogical experiences, and non-participant classroom observations to capture engagement and instructional fidelity.

To compare outcomes between TEL and traditional groups, quantitative survey data were analyzed using t-tests, ANOVA, and regression analyses, and qualitative data from interviews and observations were coded and analyzed thematically. Triangulation across measurements was used to improve validity and provide a more complete picture of TEL's impact on transdisciplinary entrepreneurial competencies.

C. RESULTS AND DISCUSSION

Results

1. Quantitative Findings

a. Comparison of TEL and Traditional Groups

Table 1. Mean Scores and Group Comparisons (Post-Intervention)

Variable	TEL (n=120) Mean (SD)	Traditional (n=120) Mean (SD)	t-value	p-value	Effect Size (Cohen's d)
Entrepreneurial Intention	4.12 (0.56)	3.68 (0.61)	5.84	<.001	0.75
Ethical Reasoning	4.05 (0.48)	3.71 (0.52)	5.01	<.001	0.67
Digital Literacy	4.28 (0.51)	3.73 (0.59)	7.02	<.001	0.98
Communication Confidence	4.18 (0.54)	3.76 (0.57)	5.92	<.001	0.74

Interpretation

Table 1 shows substantial differences in all measured variables in favor of the TEL group (p <.001). The biggest effect was found in digital literacy (d = 0.98), indicating that the TEL intervention significantly improved students' perceived digital competence. Entrepreneurial intention and communication confidence had moderate-to-large effects (d = 0.75 and 0.74, respectively), whereas ethical reasoning had a moderate influence (d = 0.67).

These findings imply that interdisciplinary TEL not only improves technical digital abilities, but it also has a positive impact on the motivating and ethical aspects of entrepreneurship education.

b. Regression Analysis: Predictors of Entrepreneurial Intention

Table 2. Multiple Regression Predicting Entrepreneurial Intention

Predictor	β	t-value	p-value
TEL Exposure (1=Yes)	.41	6.12	<.001
Ethical Reasoning	.29	4.38	<.001
Digital Literacy	.34	5.02	<.001

Communication Confidence	.26	3.97	<.01
R^2 = .52			

Interpretation

Despite controlling for ethical reasoning, digital literacy, and communication confidence, regression analysis indicates that TEL exposure strongly predicts entrepreneurial intention (β =.41, p <.001). The model accounts for 52% of the variance (R^2 =.52) in entrepreneurial intention, suggesting strong explanatory power.

Notably, digital literacy and ethical reasoning independently predict entrepreneurial intention, implying that sustained business requires technological, moral, and communicative skills.

2. Qualitative Findings

b. Thematic Analysis Results

Table 3. Summary of Emergent Themes

Theme	Description	Evidence Pattern
Ethical Deliberation	Students referenced justice, fairness, and social responsibility in business simulations	Frequent in TEL discussions; limited in traditional classes
Civic-Oriented Entrepreneurship	Business ideas linked to community needs and local problems	Stronger contextual analysis in TEL group
Digital Engagement	Active use of simulations, collaborative platforms, and online tools	High participation rates observed
Communication Articulation	Clearer presentation of business ideas and structured argumentation	Increased student-led discussions in TEL

Interpretation

Thematic coding of interviews and classroom observations demonstrated higher levels of ethical engagement among TEL participants. When analyzing

entrepreneurial actions, students typically used moral criteria such as justice and social accountability.

Furthermore, TEL participants displayed improved civic contextualization, connecting enterprise ideas to community needs rather than abstract profit models. Observational data also showed higher involvement rates and better articulation of entrepreneurial concepts, which supported the quantitative findings on communication confidence.

Integrated Interpretation

When combined, the quantitative and qualitative results show convergent evidence that the interdisciplinary TEL framework has a favorable impact on communication competence, ethical reasoning, digital literacy, and entrepreneurial intention.

Digital literacy saw the most increases, which is indicative of TEL's active use of technology. The moderate-to-large benefits on communication skills and ethical reasoning, however, imply that the combination of social studies, Islamic studies, and English language competency made a significant contribution that went beyond simple exposure to technology. Crucially, although the findings show statistically significant improvements, the results are still partially self-reported and only cover a 12-week intervention period. Therefore, rather than clear long-term entrepreneurial outcomes, findings should be taken as proof of short-term educational impact.

Discussion

The purpose of this study was to determine whether an interdisciplinary Technology-Enhanced Learning (TEL) framework that integrates English proficiency, Social Studies pedagogy, and Islamic moral economy principles could promote inclusive and sustainable entrepreneurial competencies beyond those attained through conventional entrepreneurship instruction. The results offer cautious but significant evidence in favor of this claim.

1. **Entrepreneurial Intention and Multidisciplinary TEL**

Exposure to digitally mediated, interdisciplinary learning environments may enhance students' entrepreneurial ambition, as evidenced by the statistically significant positive changes in entrepreneurial intention among TEL participants. In contrast to traditional methods that prioritize theoretical education and business planning, the TEL model included contextual case studies, cooperative problem-

solving, and simulations. These experiential components seem to have increased students' perceived feasibility and desirability of entrepreneurship. However, because the measurements were mostly self-reported, the findings represent shifts in intention and confidence rather than validated venture formation outcomes. Importantly, regression results suggesting a positive relationship between TEL exposure and entrepreneurial desire imply that digital pedagogy alone is insufficient; rather, its integration with ethical and civic content may have boosted motivational effects.

2. Ethical Reasoning and Islamic Moral Economy Integration

One of the study's main contributions is that it incorporates Islamic moral economy ideas into entrepreneurial instruction. The observed gains in TEL participants' ethical reasoning scores suggest that systematic interaction with concepts like justice, trust, and social accountability can be implemented inside digital learning environments. Classroom observations demonstrated that students were increasingly referring to ethical considerations while analyzing business scenarios, indicating internalization beyond rote learning.

This research clearly addresses longstanding criticisms that entrepreneurial education frequently ignores moral deliberation. The interdisciplinary approach appears to have redirected conversations away from profit-maximizing reasoning and toward frameworks for making socially responsible decisions. Nonetheless, the moderate impact sizes and contextual specificity discourage overgeneralization.

3. Social Studies Education and Civic-Oriented Entrepreneurship

The inclusion of Social Studies content in the TEL framework helped to improve sociocultural awareness and contextual thinking. Thematic analysis of student talks revealed a stronger understanding of how entrepreneurial activities relate with community well-being, governance frameworks, and socioeconomic disparities. TEL students were more likely than the traditional group to express business concepts in terms of local needs and societal impact.

These findings lend support to the concept that civic contextualization improves entrepreneurial education. By locating enterprise within larger societal systems, students gained a more comprehensive knowledge of economic engagement. However, the study does not determine if such awareness leads to long-term socially oriented corporate activity, emphasizing the need for longitudinal research.

4. English proficiency, communication skills, and digital fluency

The findings show that TEL participants have improved their communication confidence and digital literacy. Students participated in organized presentations, digital storytelling, and collaborative online conversations, which seemed to improve their capacity to define value propositions and engage in professional dialogue. Observational data revealed that the TEL group engaged in more active participation and articulated their entrepreneurial ideas more clearly.

Given the importance of communication in entrepreneurial ecosystems, particularly in digitally mediated marketplaces, our findings highlight the value of incorporating English literacy into entrepreneurship curricula. However, improvements were mostly assessed using self-assessment questionnaires and classroom-based evaluations rather than rigorous competency testing, which reduces precision.

5. The Function of TEL as an Integrative Catalyst

Overall, the findings indicate that TEL served as both a delivery method and an integrative catalyst. Its digital features interactive simulations, peer collaboration, and multimodal communication provided chances to integrate ethical reasoning, civic knowledge, and linguistic proficiency into entrepreneurial tasks. The multidisciplinary design appears to have improved cognitive integration across domains that are often taught separately. Nonetheless, the conversation must understand its contextual limits. The 12-week intervention measures short-term pedagogical effects, and implementation fidelity varies by institution. While statistical studies show positive directional trends, effect magnitudes were moderate, and causality could not be determined clearly.

6. Implications for Sustainable Entrepreneurship Education.

The findings add to theoretical and practical discussions about sustainable entrepreneurship education in low-resource settings. They argue that value-driven, interdisciplinary TEL models might boost not only entrepreneurial desire, but also the ethical and communicative skills required for inclusive enterprise development.

Rather than portraying technology as inherently transformational, the study shows that its influence is dependent on intentional curriculum integration. When digital tools are combined with moral frameworks, civic inquiry, and structured communication practice, they can assist solve the fragmentation that plagues much entrepreneurial education in poor countries.

Future research should build on this paradigm using longitudinal designs, experimental replication across areas, and objective measures of entrepreneurial behavior and language competency. Such research would determine if interdisciplinary TEL frameworks may make long-term, measurable contributions to sustainable entrepreneurship ecosystems.

D. CONCLUSION

This study looked at how an interdisciplinary Technology-Enhanced Learning (TEL) framework that combined Islamic Studies, Social Studies, and English competence may promote long-term entrepreneurship in Northern Nigeria. The findings show that incorporating ethical reasoning, civic awareness, digital literacy, and communication competence into digitally mediated environments might improve entrepreneurial intention and related competencies. Statistically significant differences between TEL and traditional instruction groups indicate that entrepreneurship education would benefit from moving beyond technical skill acquisition to a multidimensional model that incorporates moral economy principles, sociocultural contextualization, and structured communication practice. The findings also show that TEL can serve as an integrative pedagogical catalyst when it is purposefully constructed to connect ethical, civic, and linguistic domains. Although the findings are context-specific and partially self-reported, the study offers empirical support for curriculum reform that connects entrepreneurial capability with value-driven and socially responsive development goals. The findings support the premise that sustained entrepreneurship education necessitates interdisciplinary coherence rather than separate instructional innovations.

Based on the findings and conclusions of this study, the following recommendations are made: Curriculum Integration: Educational planners should establish interdisciplinary entrepreneurship modules that formally connect Islamic ethical concepts, civic education, and English communication training using digital learning platforms. Structured TEL Design: Institutions should shift from content digitalization to interactive TEL models that include simulations, ethical case analysis, collaborative problem-solving, and professional communication tasks. Teacher Capacity Building: To guarantee effective implementation, professional development programs should provide educators with training in interdisciplinary instructional methodologies and digital pedagogy. Assessment Reform: In addition to standard

business knowledge evaluations, evaluation frameworks should include measures of ethical reasoning, civic orientation, digital literacy, and communication competence. Longitudinal Research: Future studies should use longitudinal and experimental designs to examine long-term behavioral outcomes such as venture development, ethical business practices, and measurable economic participation.

Collectively, these principles encourage the creation of inclusive and value-driven entrepreneurial education models that may be tailored to resource-constrained and culturally diverse situations.

REFERENCES

Ahmed, H. (2011). *Product development in Islamic banks*. Edinburgh University Press.

Ali, A. J. (2015). *Islamic perspectives on management and organization*. Edward Elgar Publishing.

Banks, J. A. (2008). *An introduction to multicultural education* (4th ed.). Pearson Education, Inc., Boston.

Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2018). Entrepreneurial intention among engineering students: The role of entrepreneurship education. *European Research on Management and Business Economics, 24*(1), 53–61. https://doi.org/10.1016/j.iedeen.2017.04.001

Blake, R. J. (2013). *Brave new digital classroom: Technology and foreign language learning* (2nd ed.). Georgetown University Press.

Chapelle, C. A., & Sauro, S. (2017). *The handbook of technology and second language teaching and learning*. Wiley-Blackwell. https://doi.org/10.1002/9781118914069

Chapra, M. U. (2008). *The Islamic vision of development in the light of Maqasid al-Shariah*. Islamic Research and Training Institute.

Dede, C. (2014). The role of digital technologies in deeper learning. *Students at the Center: Deeper Learning Research Series*. Jobs for the Future.

Fayolle, A., & Liñán, F. (2014). The future of research on entrepreneurial intentions. *Journal of Business Research, 67*(5), 663–666. https://doi.org/10.1016/j.jbusres.2013.11.024

Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: a new methodology. *Journal of European Industrial Training,* 2006, 30 (9), 701-720 p. ⟨10.1108/03090590610715022⟩

Gibb, A. (2002). In Pursuit of a New Entrepreneurial Paradigm for Learning: Creative Destruction, New Values, New Ways of Doing Things and New Combination of Knowledge. *International Journal of Management Reviews,* 4, 233-269. http://dx.doi.org/10.1111/1468-2370.00086

Jones, B., & Iredale, N. (2010). Viewpoint: Enterprise Education as Pedagogy. *Education and Training,* 52, 7-18. http://dx.doi.org/10.1108/00400911011017654

Martin, B. C., McNally, J. J., & Kay, M. J. (2013). Examining the Formation of Human Capital in Entrepreneurship: A Meta-Analysis of Entrepreneurship Education

Outcomes. *Journal of Business Venturing, 28,* 211-224. https://doi.org/10.1016/j.jbusvent.2012.03.002

Means, B., Toyama, Y., Murphy, R., & Baki, M. (2013). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. *Teachers College Record, 115*(3), 1–47. https://doi.org/10.1177/016146811311500307

Morris, M. H., Kuratko, D. F., & Cornwall, J. R. (2015). *Entrepreneurship programs and the modern university*. Edward Elgar Publishing.

Nabi, G., Liñán, F., Fayolle, A., Krueger, N., & Walmsley, A. (2017). The impact of entrepreneurship education in higher education. *Academy of Management Learning & Education, 16*(2), 277–299. https://www.jstor.org/stable/26400192

Nabi, G., Walmsley, A., Liñán, F., Akhtar, I., & Neame, C. (2018). Does entrepreneurship education in the first year of higher education develop entrepreneurial intentions? *Studies in Higher Education, 43*(3), 452–467. https://doi.org/10.1080/03075079.2016.1177716

Rideout, E. C., & Gray, D. O. (2013). Does entrepreneurship education really work? *Journal of Small Business Management, 51*(3), 329–351. **https://doi.org/10.1111/jsbm.12021Digital Object Identifier (DOI)**

Santos, F. M. (2012). A positive theory of social entrepreneurship. *Journal of Business Ethics, 111*(3), 335–351. https://doi.org/10.1007/s10551-012-1413-4

Siew, N. M. (2025). FOSTERING CREATIVE THINKING IN ENTREPRENEURSHIP AMONG RURAL STUDENTS THROUGH SOCIO-SCIENTIFIC ISSUES AND DESIGN THINKING INTEGRATION IN SCIENCE EDUCATION. *Journal of Baltic Science Education 24(1):169-186.* DOI:10.33225/jbse/25.24.169

Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty-eight countries*. IEA. Amsterdam.

Urbano, D., Aparicio, S., & Audretsch, D. (2019). Twenty-five years of research on institutions, entrepreneurship, and economic growth. *Small Business Economics, 53*(1), 21–49. https://doi.org/10.1007/s11187-018-0038-0

Abdulsalam, M. K., Odeniyi, I. K., Muhammad, A. A., & Khan, H. (2025). Understanding the intersection of Islamic principles and humanitarian services: Efforts of Muslim Students' Society of Nigeria. *Indonesian Journal for Islamic Studies, 3*(2), 84–91. https://doi.org/10.58723/ijfis.v3i2.484

Abubakar Dutsin-Amare, I., Ahmad, M. G., Sai'D, I. S., Ibrahim, G. R., & Muhammad, A. A. (2025). Assessment of Islamic e-business transactions in small and medium-sized enterprises (SMEs) and their impact on Muslims in Northwestern Nigeria. *Indonesian Journal for Islamic Studies, 3*(1), 1–11. https://doi.org/10.58723/ijfis.v3i1.377

Abubakar Muhammad, A., Ibrahim, A., Yakub, A. A., Khan, H., & Hamzah, N. (2025). The role of Islamic finance in promoting economic justice and financial inclusion among marginalised communities. *Suhuf: International Journal of Islamic Studies, 37*(1). https://doi.org/10.23917/suhuf.v37i1.10167

Abubakar Muhammad, A., Yakub, A. A., Mikail, U. J., & Ibrahim, A. (2025). The relevance of waqf in supporting environmental education and sustainable development. *El-Ahli: Jurnal Hukum Keluarga Islam, 6*(1), 45–61. https://doi.org/10.56874/el-ahli.v6i1.2274

Darmanto, Asy'arie, B. F., Susanti, S. S., Fatimah, S., & Muhammad, A. A. (2025). Examining Islamic educational philosophy as a special philosophy. *Al-Ibrah: Jurnal Pendidikan Dan Keilmuan Islam, 10*(1), 40–65. https://doi.org/10.61815/alibrah.v10i1.528

Muhammad, A. A., Aliyu, S. A., Ardo, A. M., Shariff, I. A., & Muhammad, Y. Z. (2025). The role of AI in transforming teacher education in Nigeria: Opportunities and challenges. *Innovative Minds, 1*. Retrieved from https://pub.darulfunun.id/index.php/imind/article/view/105

Muhammad, A. A., Yakub, A. A., Fahmi, R., Afifi, A. A., & Ibrahim, A. (2025). Public private partnerships (PPP) in waqf for improving teaching quality in Gombe State's Islamic and secular schools: A community service approach. *Aktual: Jurnal Pengabdian Kepada Masyarakat, 3*(2), 82–88. https://doi.org/10.58723/aktual.v3i2.407

Muhammad, A. A., Yakub, A. A., Mikail, U. J., Adama Ahmad, M. H., Hamzah, N., & Khan, H. (2025). Reviving waqf-based endowments for sustainable teacher training in Northern Nigeria. *Indonesian Journal of Pedagogy and Teacher Education, 3*(1), 27–33. https://doi.org/10.58723/ijopate.v3i1.404