"EL-BAIT": (Ecotheology-Based Innovative Technopreneurship): A Conceptual Model Bridging Innovation, Digital Ethics, and Response to Climate Crisis"

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Abstract

The increasing pressure for technological innovation in the digital economy has triggered a crisis of values, where technopreneurial practices often neglect ethical, ecological, and spiritual dimensions. This phenomenon highlights a critical gap in current digital business models, which rarely integrate faith-based principles and sustainability frameworks. Drawing from the theories of Triple Bottom Line, Stakeholder Theory, TOE Framework, The House model, and Maqosidus shariah principles, this study proposes a conceptual model called EL-BAIT (Ecotheology-Based Innovative Technopreneurship) that integrates technological innovation, faith commitment, and ecological ethics. The model addresses the urgent need for a holistic entrepreneurial paradigm that fosters both economic competitiveness and socio-environmental legitimacy. This article employs a critical literature review method by synthesizing empirical studies and conceptual frameworks published between 2010–2025 from Scopus-indexed journals and DOAJ. Key variables were clustered thematically and mapped into an integrated conceptual diagram of Eco-theological innovative technopreneurship. The findings reveal three components – Technological innovation, Faith-driven entrepreneurship, and sustainability as the strategic key way of ethical green technology innovation and five core components—faith-led leadership, digital capability, stakeholder empathy, green organizational culture, and sustainability awareness —as the supporting behavior. A real life case study will be used to illustrate the proposed model. This model serves as a normative guide for ethical startup development in Muslim-majority and sustainability-driven societies. Future research is recommended to empirically validate the ELBAIT model through case studies or participatory design involving digital entrepreneurs, policymakers, and faith-based communities.

Keywords: Ecotheology, Technopreneurship, Faith-Driven Ventures, Sustainabililty

1. Introduction

The global climate crisis has emerged as a critical threat to the sustainability of ecosystems, economies, and long-term development. A study conducted by the Potsdam Institute for Climate Impact Research (2023) estimates that the economic impact of climate change could reach USD 38 trillion annually by 2050 if not addressed systematically(Institute for Climate Impact Research, n.d.). At the same time, Vast technological advancement and population growth and the technological entrepreneurship sector is experiencing exponential growth, fueled by innovations in artificial intelligence, big data, and blockchain. However, this rapid expansion has led to increasing violations of ethical and ecological principles, as evidenced by cases of non-halal product fraud by Ayam Widuran in Solo (Ikawati et al., 2024), greenwashing scandals (Yang et al., 2020), digital labor exploitation (Fish & Srinivasan, 2012), digital divide (Lythreatis et al., 2022), privacy and data security issues (Gupta & Saraf, 2023; Liu et al., 2021), and the significant carbon footprint of the technology industry (Tetteh et al., 2021).

This paradox becomes even more concerning when considering the fact that many technopreneurs remain trapped in a short-term economic logic, as reflected in financial manipulation and embezzlement scandals involving startups such as E-Fishery, Investree, Koinworks, Tanihub, and Crowde. This phenomenon is not exclusive to Indonesia. International cases such as Theranos, WeWork, and Zenefits demonstrate how the "fake it till you make it" mentality, driven by hypergrowth ambitions, has led to widespread ethical violations and fraudulent practices (Donald A. Palmer, 2021; Wesley Park, 2025). These conditions indicate that many tech startups have yet to adopt spiritual

values or Sharia compliance as strategic foundations of their businesses. This is concerning given the global halal market's consistent expansion, which reached USD 7 trillion in 2023 and is projected to grow to USD 10 trillion by 2030 with a CAGR of approximately 5.5% (SGIE Report, 2023). This growth highlights a significant opportunity for business models that are not only sharia-compliant but also environmentally sustainable and socially inclusive.

In response to these challenges, a new approach to technopreneurship is urgently needed, one that is innovative, sustainability-oriented, and rooted in spiritual values. This concept is referred to as Ecotheology-Based Innovative Technopreneurship (EL-BAIT), which defines a model of technology-based entrepreneurship grounded in ecotheological values as a moral and spiritual foundation. Rather than focusing solely on economic growth and disruptive innovation, this approach integrates the principles of maqāṣid al-sharīʿah and sustainable development. With these values as a foundation, technopreneurship can generate market-relevant solutions while remaining spiritually, socially, and ecologically responsible.

However, few studies have explicitly integrated faith-based values, environmental sustainability, and technological transformation into a comprehensive conceptual model. Most of the existing literature tends to discuss technopreneurship, spiritual-based leadership, faith-driven entrepreneurship, and green economy separately. To date, no comprehensive model has specifically incorporated ecotheology within the framework of technopreneurship. As far as the authors are aware, research on ecotheology-based technopreneurship remains scarce and underdeveloped. A few relevant studies include Labrecque (2022), who examined the integration of Catholic theology with technology and ecological issues (Labrecque, 2022), and Andhella et al. (2024), who explored the relationship between technopreneurship and sustainability but without addressing faith and Sharia dimensions (Andhella et al., 2024).

The urgency to develop a technopreneurship model grounded in sustainability and spirituality continues to grow in light of global pressure to regulate the green economy, as well as increasing consumer awareness of ethical business and halal product standards. Therefore, this study aims to:

1. Develop a conceptual model of Ecotheology-Based Innovative Technopreneurship (EL-BAIT) that integrates technological innovation, faith-driven entrepreneurship, and sustainability in addressing the climate crisis;
2. Explore the integration of key theoretical frameworks such as the Triple Bottom Line (Elkington, 1998), the TOE Framework, Stakeholder Theory, and maqāṣid al-sharīʿah;
3. Present case studies of Sharia-compliant startups that have implemented these principles.

To achieve these objectives, the study adopts a systematic literature review (SLR) approach based on the framework of (Tranfield et al., 2003), combined with qualitative content analysis as proposed by (Mayring, 2015). This article reviews 50 selected articles from reputable databases and Google Scholar, published between 2010 and 2025. The findings are expected to contribute to the conceptual development of ethical and sustainable startup models, value-based technopreneurship education, and the formulation of inclusive and Sharia-compliant digital economic policies. This study aligns with several Sustainable Development Goals (SDGs), including SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action)

2. Methods

2.1 Research Design

This study employs a Systematic Literature Review (SLR) approach, following the structured framework proposed by Tranfield et al. (2003). The SLR method was chosen due to its ability to synthesize and critically evaluate the current state of knowledge, identify gaps, and propose conceptual advancements. This design is particularly appropriate for theoretical model development, especially in emerging interdisciplinary fields such as ecotheology-based technopreneurship. Importantly, this study is purely conceptual and does not involve primary data collection or empirical fieldwork. Its primary objective is to construct a normative and integrative model that unites multiple theoretical lenses to address urgent ethical and environmental challenges in the digital technopreneurship ecosystem. Future research is recommended to empirically validate the proposed EL-BAIT model using case studies, mixed methods, or participatory design approaches involving practitioners and policymakers.

2.2 Data Sources and Search Strategy

The PRISMA method guides the identification, screening, eligibility assessment, and inclusion of relevant scholarly sources. The data were derived from reputable databases, including Scopus, Google Scholar, ScienceDirect, and SpringerLink. Search queries combined keywords such as "technopreneurship", "faith-based entrepreneurship", "ecotheology", "Islamic business ethics", "sustainability", and "maqāṣid al-sharīʿah". Boolean operators (AND/OR) and filters (years: 2010–2025; subject areas: Business, Ethics, Theology, Sustainability) were applied to refine the results.

2.3 Inclusion and Exclusion Criteria

Inclusion criteria were as follows: (1) peer-reviewed journal articles or reputable conference papers, (2) published between 2010–2025, (3) written in English or Indonesian, (4) explicitly addressing at least one of the core themes: technopreneurship, faith-based entrepreneurship, ecotheology, or sustainable innovation. Excluded were blog posts, non-peer-reviewed essays, and articles lacking conceptual or empirical relevance.

2.4 Evaluation and Data Analysis Technique

A qualitative content analysis was employed to interpret and categorize the selected articles. The analysis followed Mayring's (2014) inductive coding method, focusing on identifying key constructs, recurring themes, theoretical frameworks, and integrative patterns. The remaining articles were evaluated manually based on relevance to the study's theoretical frameworks—namely the TOE Framework, maqāṣid al-sharīʿah, Triple Bottom Line (TBL), and Stakeholder Theory. This rigorous selection process yielded a curated set of high-quality sources that formed the basis for developing the conceptual model.

2.5 Output of the Method

The methodological procedures culminated in the formulation of a conceptual model entitled Ecotheology-Based Innovative Technopreneurship (EL-BAIT), which integrates key theoretical constructs drawn from the Triple Bottom Line (TBL), Technology–Organization–Environment (TOE) Framework, Stakeholder Theory, and maqāṣid al-sharīʿah. In addition, a selection of exemplary Sharia-compliant startup cases is presented to illustrate the practical applicability of the model within diverse entrepreneurial contexts.

The inclusion of 50 articles in this study is considered methodologically adequate based on three primary justifications. First, in terms of relevance, all articles were carefully selected for their direct engagement with the core thematic pillars of this research: technopreneurship, ecology, faith-driven entrepreneurship, and sustainability. Second, the representativeness of the literature ensures broad theoretical coverage, spanning diverse yet interrelated disciplines. Thereby facilitating a robust multi-perspective synthesis. Third, the diversity of data sources (including Scopus, DOAJ, ScienceDirect, SpringerLink, and Google Scholar) ensures a balanced representation of both high-impact global journals and regionally contextualized insights.

3. Results and Discussion

Theoretical Foundation: Towards Ecotheology-Based Innovative Technopreneurship

EL-BAIT is a conceptual model of technology-based entrepreneurship that integrates multiple disciplinary theories in technological innovation, faith-driven entrepreneurship, and sustainable business. The following are the core theoretical frameworks employed:
Ecotheology

Ecotheology is used as an ideological component that blends religious teachings with ecological awareness, viewing humans as stewards (khalifah) responsible for preserving nature.
TOE Framework

The TOE Framework by Tornatzky & Fleischer (1990) organizes the factors influencing technology adoption into three dimensions: Technological context (readiness and compatibility of new technologies), Organizational context (value-driven culture, structure, and sustainability commitment), and Environmental context (regulations, market pressure, and social norms).
Maqāṣid al-Sharīʿah

This principle forms the ethical basis for Sharia-compliant business. According to Imam al-Shatibi, it includes five core objectives: protection of religion (dīn), life (nafs), intellect (ʿaql), lineage (nasl), and wealth (māl).
Triple Bottom Line

Proposed by Elkington (1998), this framework states that true sustainability can only be achieved through a balance of three core dimensions: Profit (economic), People (social), and Planet (environmental).

Stakeholder Theory

Introduced by Freeman & McVea (2001), this theory urges entrepreneurs to consider the interests of all stakeholders, including customers, local communities, employees, government, and the environment, not just shareholders (Child & Marcoux, 1999; Dunham et al., 2008).

The House Model

The House Model is a tool which is used by an organization using a concept built to transform a dream into an action. Figure 1 will explain The House Model. According to Horovitz and Corbooz (2007), there are three components to build good visions which dreams located as the rooftop, pillar consists as the main methods to achieve this vision, and the foundation as the main indicators of improved performance and the behavior of supporting factors.
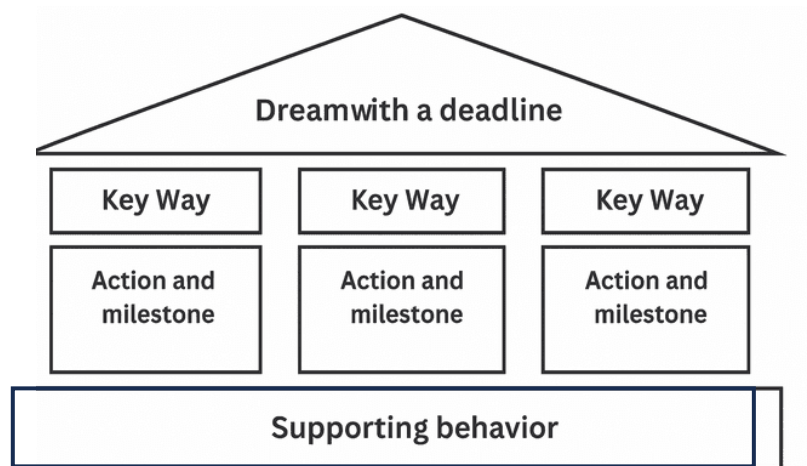

Figure 1. The House Model Framework (Horovitz dan Corbooz, 2007)

Conceptual Model: Towards Ecotheology-Based Innovative Technopreneurship (EL-BAIT)

The conceptual model of EL-BAIT represents an interdisciplinary approach to technopreneurship. The acronym EL-BAIT stands for Ecotheology-Based Innovative Technopreneurship and draws symbolic meaning from the Arabic term "Al-Bayt," which means "the house." This metaphor carries a profound ecological and theological message that the Earth be preserved and cared for as a shared home for all living beings. (see figure 2).

This study adopts the House Model framework developed by Horovitz and Corbooz (2007) as a strategic approach to bridge idealist aspirations (ecotheological vision) with measurable and sustainable action. In the EL-BAIT model, the "roof" symbolizes the higher purpose of ecotheology-based technopreneurship by integrating three essential pillars: technological innovation, faith-driven values, and sustainability. These pillars are not regarded as separate domains, but rather as mutually reinforcing dimensions that must be holistically embedded within the structure of ethical technopreneurship.

Meanwhile, the foundation of the EL-BAIT "house" comprises five core behavioral components: faith-led leadership, digital capability, stakeholder empathy, green organizational culture, and sustainability awareness. These components form the base of the model and are vital in guiding the design, strategic orientation, and practical implementation of technopreneurial ventures.
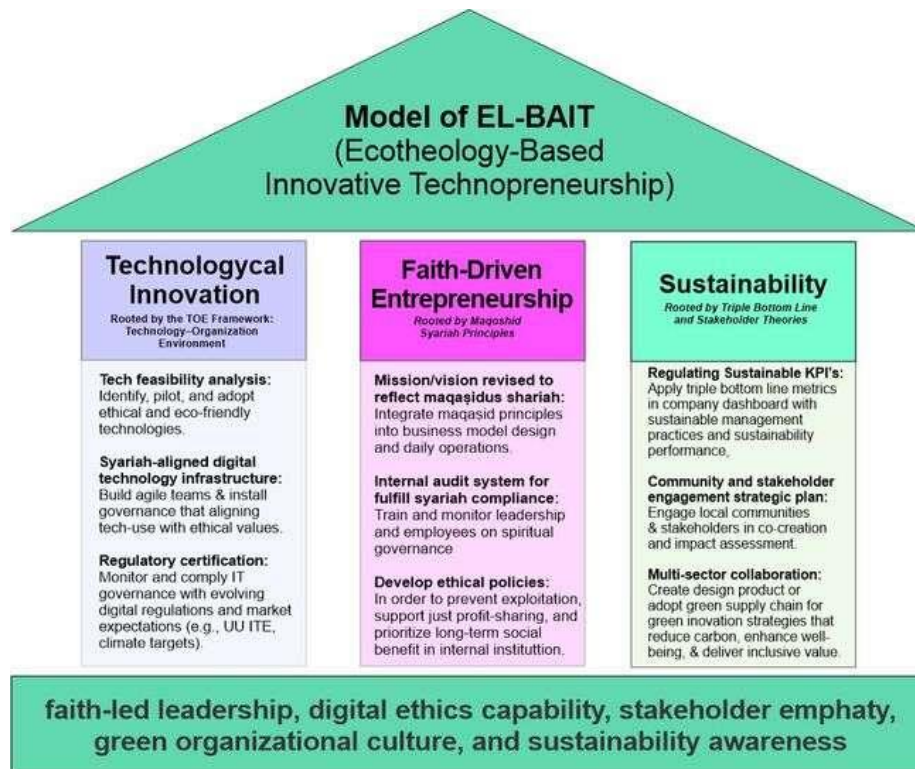
Model of EL-BAIT
(Ecotheology-Based
Innovative Technopreneurship)

Technologycal Innovation
Rooted by the TOE Framework: Technology-Organization Environment

Tech feasibility analysis: Identify, pilot, and adopt ethical and eco-friendly technologies.

Syariah-aligned digital technology infrastructure: Build agile teams & install governance that aligning tech-use with ethical values.

Regulatory certification: Monitor and comply IT governance with evolving digital regulations and market expectations (e.g., UU ITE, climate targets).

Faith-Driven Entrepreneurship
Rooted by Maqoshid Syariah Principles

Mission/vision revised to reflect maqaṣidus shariah: Integrate maqaṣid principles into business model design and daily operations.

Internal audit system for fulfill syariah compliance: Train and monitor leadership and employees on spiritual governance

Develop ethical policies: In order to prevent exploitation, support just profit-sharing, and prioritize long-term social benefit in internal instituttion.

Sustainability
Rooted by Triple Bottom Line and Stakeholder Theories

Regulating Sustainable KPI's: Apply triple bottom line metrics in company dashboard with sustainable management practices and sustainability performance.

Community and stakeholder engagement strategic plan: Engage local communities & stakeholders in co-creation and impact assessment.

Multi-sector collaboration: Create design product or adopt green supply chain for green inovation strategies that reduce carbon, enhance well-being, & deliver inclusive value.

faith-led leadership, digital ethics capability, stakeholder emphaty, green organizational culture, and sustainability awareness

Figure 2. Conceptual Model of Ecotheology - Based Innovative Technopreneurship (EL-BAIT)

Technologycal Innovation

The first pillar in the EL-BAIT (Ecotheology-Based Innovative Technopreneurship) model represents the dimension of technological innovation, which serves as a primary engine in the ecotheological technopreneurship ecosystem and ensure that digital transformation doesn't contradict faith or sustainability values. In this context, technology is not merely viewed as a tool for operational efficiency, but as a transformative medium for driving ethical and sustainable digital economies. The development of the EL-BAIT model situates this dimension within a comprehensive theoretical framework, notably the TOE Framework (Tornatzky & Fleischer, 1990), which explains that the adoption of technological innovation within organizations is shaped by three core contexts: Technological, Organizational, and Environmental.

Within the technological context, innovation is influenced by the availability, characteristics, and compatibility of emerging technologies with organizational goals. In the realm of technopreneurship, this includes the application of cutting-edge technologies such as Artificial Intelligence (AI), Internet of Things (IoT), blockchain, big data analytics, and cloud computing—all of which present transformative potential across production, operations, distribution, and customer engagement. Key adoption factors, as outlined by (Do, 2008), include relative advantage, complexity, compatibility, and ease of use, all of which influence a technopreneur's perceived value and risk in adopting these technologies.

In this regard, the tech feasibility analysis becomes essential. This involves identifying, piloting, and adopting eco-friendly and ethically digital technologies, ensuring they align not only with business needs but also with long-term ecological and spiritual values. (Auda, 2008). The organizational context refers to how internal structures, resources, and values shape technology adoption. Success in this dimension is contingent upon faith-driven governance, in which strategic decisions are grounded in Islamic values such as maqāṣid al-sharīʿah (the preservation of religion, life, intellect, wealth, and lineage), justice ('adl), benefit (maṣlaḥah), and trust (amānah). Agile teams and ethical leadership are required to build Shariah-aligned digital infrastructure, fostering responsiveness to technological changes while staying true to the organization's spiritual mission of social and environmental impact.

The environmental context captures external forces that influence technological adoption, including government policies, market competition, climate regulations, and changing consumer expectations toward halal-certified, ethical, and sustainable products. In emerging economies like

Indonesia, the rise of climate-driven policies (e.g., carbon tax, renewable energy incentives) and a growing halal digital ecosystem, such as Islamic business incubators, pesantren-based tech communities, and the Halal Industry Masterplan 2023–2029, further intensifies the need for technopreneurs to adapt.

Then, regulatory certification becomes a strategic imperative. Organizations must continuously monitor and comply with IT governance regulations, including evolving frameworks such as Indonesia's UU ITE, ESG standards, and climate compliance targets, to maintain legitimacy and competitive edge in the digital halal economy.

Faith-Driven Entrepreneurship

Rooted in the principles of maqāṣid al-sharīʿah, this pillar integrates spirituality into the business model. This pillar answers the value crisis by grounding innovation in ethical and ecologycal principles. Faith-driven entrepreneurship is adopted from the conceptual framework developed by Henry Kaestner, J.D. Greear, and Chip Ingram in their book Faith Driven Entrepreneur (Kaestner, 2021), which encourages entrepreneurs to live out their business roles authentically by embedding their faith into every dimension of their professional life. This dimension represents faith-based values and spiritual ethics as the moral foundation of ecotheology-based technopreneurship. It explores how religious conviction can serve as a primary source of motivation for entrepreneurs in initiating and managing business ventures.

In the context of this study, the Faith-driven entrepreneurship dimension refers to the five core objectives of maqāṣid al-sharīʿah: 1) preservation of religion (dīn), 2) life (nafs), 3) intellect (ʿaql), 4) future generation (nasl), and 5) wealth (māl). These principles serve as ethical benchmarks and are integrated into the formulation of vision and mission, organizational governance (faith-driven governance), business models, and innovation practices within ecotheology-based technopreneurial ecosystems. Several concrete actions and milestones should be established within technopreneurial organizations. The first strategic step is aligning the organization's mission and vision with the objectives of maqāṣid al-sharīʿah. This alignment requires a deliberate effort to reinterpret business goals and serves as a guiding compass for long-term planning, resource allocation, and stakeholder engagement.

The second is internal audit system for fulfilling shariah compliance. This system involves training leaders and employees on the principles of faith-driven governance, ethical decision-making, and Shariah-compliant operations. It also includes regular assessments and audits to monitor compliance with Islamic ethical standards across the organization's activities. Key milestones include the development of standard operating procedures (SOPs) for Shariah audits, completion of staff training programs, and periodic evaluation reports to identify gaps and recommend improvements.

The third action point is development of ethical institutional policies. it focuses on institutionalizing ethical standards that guide business conduct. These policies aim to prevent exploitation, greenwashing, support equitable profit-sharing, and promote inclusive benefits for society. This includes transparent financial practices, fair employee compensation, ethical investor relations, and a long-term orientation toward social and environmental well-being. Key milestones involve drafting and ratifying an ethics charter, integrating these standards into contracts and workflows, and establishing mechanisms for grievance reporting and ethical review. these action points form a cohesive roadmap for embedding maqāṣid al-sharīʿah into the fabric of technopreneurship, ensuring that the pursuit of innovation and growth is harmonized with deep spiritual responsibility and societal impact.

Nevertheless, many technopreneurs still fail to fully internalize these principles in their business practices. This is evident in several cases of misconduct observed in the field. A notable example is the alleged financial manipulation involving eFishery, a prominent Indonesian aquaculture startup and unicorn, which was accused of inflating its revenue by nearly IDR 10 trillion. In reality, the company was found to have suffered a loss of approximately IDR 575 billion. This case highlights a significant gap between the ethical ideals of technopreneurship and the actual business practices that remain entrenched in a short-term economic growth mindset—often neglecting compliance with maqāṣid al-sharīʿah principles, particularly ḥifẓ al-māl (the protection of wealth) and environmental sustainability.

Furthermore, the case of TaniFund, a peer-to-peer lending platform focused on agriculture, also illustrates a failure to uphold principles of responsible governance. In May 2024, Indonesia's Financial Services Authority (OJK) officially revoked TaniFund's business license due to its failure to meet minimum equity requirements, its disregard for supervisory recommendations, and its alarming default rate—evidenced by a 90-Day Default Rate (TWP90) reaching 63.9%. These cases

underscore the urgent need for a paradigm shift from transactional economic models toward more inclusive, value-driven approaches grounded in the objectives of maqāṣid al-sharīʿah, which emphasize ethical stewardship, financial integrity, and long-term sustainability

Sustainability

The Sustainability pillar within the EL-BAIT (Ecotheology-Based Innovative Technopreneurship) model represents the entrepreneur's deep commitment to ecological, social, and economic sustainability across all stages of business operations. This pillar is grounded in the Triple Bottom Line (TBL) framework proposed by Elkington (1998), which asserts that genuine sustainability cannot be achieved through economic profit (profit) alone but must also encompass positive contributions to social welfare (people) and environmental preservation (planet).

In the Indonesian context, the emergence of climate-driven regulatory frameworks—such as the development of renewable energy sources, implementation of carbon taxation, and provision of incentives for green businesses—demonstrates the country's strategic direction toward a green economy. This is further reinforced by key national policies such as the FOLU Net Sink Indonesia 2030 Roadmap, the National Energy Policy (Government Regulation No. 79/2014), and stronger alignment with Net Zero Emissions (NZE) and Environmental, Social, and Governance (ESG) frameworks. These policies provide essential external pressure and institutional support that encourage technopreneurs to align their business models with both national sustainability agendas and global climate goals.

Stakeholder Theory (Freeman & McVea, 2008) offers a crucial theoretical foundation for technopreneurs to design business strategies that are not solely profit- or user-centered, but also responsive to the diverse needs and expectations of stakeholders affected by digital operations. These stakeholders include local communities, regulators, freelance workers, and indirectly impacted populations. Empirical studies (Even et al., 2024) have shown that stakeholder engagement, particularly through co-creation processes, enhances social legitimacy, market acceptance, and organizational resilience in the face of external shocks.

To translate this philosophy into action, technopreneurs are encouraged to apply Triple Bottom Line metrics their internal performance dashboards, ensuring that profit, people, and planet considerations are reflected in strategic decisions. This includes embedding sustainable management practices and systematic sustainability performance. The institutionalization of sustainability indicators helps organizations align business priorities with long-term ecological and social imperatives.. Second, stakeholder engagement plans should be executed as part of regular business strategy cycles. This engagement facilitates co-creation of solutions that are locally relevant and socially acceptable.

Third, multi-sectoral collaboration plays a pivotal role in the implementation of green innovation strategies. Technopreneurs are encouraged to design products or adopt green supply chains that can minimize carbon emissions, improve well-being, and create inclusive value. Integrating upstream and downstream stakeholders, such as suppliers, logistics & transportation partners, and community networks can foster a regenerative ecosystem that not only serves commercial goals but also contributes to systemic environmental improvement.

Supporting Behaviors as the Baseline in the EL-BAIT Model

The EL-BAIT conceptual model reveals five foundational behavioral competencies that serve as critical enablers in translating ecotheological values into ethical technopreneurial practices. These competencies form the behavioral infrastructure that supports the integration of technological innovation, faith-driven entrepreneurship, and sustainability and ensuring that the model is not merely theoretical, but practically implementable within diverse entrepreneurial ecosystems (See Table 1).

No	Component	Conceptual Idea	Key Reference
1	Faith-led leadership	Leadership rooted in spiritual and moral integrity, aligning with maqāṣid al-sharīʿah.	(Carradus et al., 2020)
2	Digital ethics capability	Ethical digital literacy to enhance innovation and firm performance.	(Khin & Ho, 2019); (Litschka, 2025)
3	Stakeholder empathy	Empathetic engagement with diverse stakeholders, shaped by identity and place.	(Brown et al., 2019) (Child & Marcoux, 1999)

No	Component	Conceptual Idea	Key Reference
4	Green organizational culture	Embedding sustainability in organizational identity and operations.	(Aggarwal & Agarwala, 2021)
5	Sustainability awareness	Fostering future-oriented mindset across all stages of venture development.	(Garbie, 2015)

Table 1. EL-BAIT Model Behavioral Components

The first behavioral component is faith-led leadership, which underscores the necessity for leaders to embody moral integrity, spiritual awareness, and theological guidance in organizational decision-making, according the study, the influence of faith-led practices in the organizational practices of family businesses have greater repercussions than previously thought(Carradus et al., 2020). This form of leadership integrates Islamic ethical values such as justice (ʿadl), trust (amānah), humility (tawāḍuʿ), and responsibility (masʾūliyyah), while aligning business objectives with the broader goals of maqāṣid al-sharīʿah. It calls for a departure from purely profit-driven leadership models toward those that prioritize long-term community welfare and environmental stewardship.

Secondly, the model identifies digital ethics capability as a core behavioral competency that extends beyond mere technical proficiency. Digital ethics capability is not just about having access to or knowing about digital tools. Digital ethics capability is linked to faith-led and ethical considerations, such as responsible use of AI, protecting data privacy, and avoiding technological harm. Studies such as (Khin & Ho, 2019) describe digital capability as a behavioral-enabling construct that affects how organizations innovate, adapt, and perform. This study also adopts the AI ethics capability approach proposed by (Litschka, 2025) particularly in exploring solutions to ethical dilemma situations arising from the development and application of emerging AI technologies.

The third component, stakeholder empathy, emphasizes the significance of relational accountability in technopreneurial ventures. Cultivating this form of empathy requires meaningful engagement with stakeholders' lived experiences, values, and the specific socio-cultural contexts in which sustainability challenges emerge (Brown et al., 2019). Grounded in Stakeholder Theory (Child & Marcoux, 1999), this approach positions stakeholder empathy within the EL-BAIT model not as a generic or abstract principle, but as one that is socially and spatially situated. In other words, an entrepreneur's capacity to empathize with and respond to stakeholders is shaped by their emotional connection to place—such as local ecosystems or community practices, and by their personal or collective identities, including religious, cultural, or environmental worldviews.

The fourth component is the cultivation of a green organizational culture, adopted from The model proposed by Harris and Crane (2002), Journal of Organizational Change Management, vol. 15, pp. 214–234) and Priyanka Aggarwal (2021), which requires embedding sustainability into all aspects of the organization's identity and operations (Aggarwal & Agarwala, 2021; Harris & Crane, 2002). Practices such as ethical sourcing, waste reduction, carbon accounting, and environmentally conscious procurement are viewed as strategic imperatives rather than peripheral CSR activities. This commitment is theologically reinforced by the Islamic concept of khilāfah, which regards humans as stewards of the Earth, morally obligated to preserve ecological balance.

Finally, the last component is sustainability awareness which emerges as a critical mindset that must be instilled across all stages of venture development. In line with this, the assessment approach proposed by Ibrahim Garbie (2015) can serve as a valuable template or diagnostic instrument to evaluate the current state of sustainability awareness within various industrial environments. (Garbie, 2015)

Case Studies of Ecotheology-Based Technopreneurship (EL-BAIT)

This section examines a series of case studies featuring companies that embody ecotheological principles in their technopreneurial practices, aligning with the conceptual model of Ecotheology-Based Innovative Technopreneurship (EL-BAIT). The cases span various sector including banking, aquaculture, and logistics. These demonstrate how the visionary concepts articulated in this study can be operationalized through real-world applications. These examples illustrate the practical integration of ethical, spiritual, and sustainability-oriented values into business models, thereby reinforcing the viability and relevance of EL-BAIT across diverse industries.

Banking Sector Case Study: Digital Carbon Tracking by Bank Syariah Indonesia

Bank Syariah Indonesia (BSI) exemplifies how a financial institution in the banking sector can successfully integrate Shariah-compliant values into its business practices, technological innovation,

and environmental sustainability. This commitment is reflected in BSI's launch of a Digital Carbon Tracking platform, designed to measure, manage, and report greenhouse gas (GHG) emissions across more than 1,130 outlets nationwide. As the first Islamic bank in Indonesia to implement a digital carbon tracking system, BSI demonstrates the strategic role financial institutions can play in the transition toward EL-BAIT Model, supporting national Net Zero Emission goals and fostering a green business culture among stakeholders.

Aquaculture and Fisheries Case Study: JALA Tech

Another notable example is JALA Tech, a technology-based startup focusing on innovation in shrimp aquaculture with the objective of improving productivity, operational efficiency, and environmental sustainability. By leveraging Internet of Things (IoT) technologies, JALA enables real-time monitoring and intelligent management of shrimp ponds, allowing farmers to optimize water and feed use while minimizing negative environmental impacts. One of its flagship products, JALA Market, provides high-quality, halal-certified frozen shrimp and dory to consumers. JALA Tech has successfully built a resilient and proactive innovation ecosystem that not only ensures technical sustainability but also adheres to halal business standards while empowering local aquaculture communities. The case of JALA Tech exemplifies how ethical technopreneurship can enhance value across ecological, social, and spiritual domains. (Akmal, 2025)

Logistics and Supply Chain Case Study: Waresix

Waresix is a digital platform specializing in warehousing and trucking services, offering streamlined, efficient, and transparent logistics solutions. The company stands out in the logistics sector for its dual focus on environmental accountability and Shariah compliance. Waresix has officially obtained halal certification, signaling its commitment to supporting consumer trust and contributing to the growing halal industry in Indonesia. Beyond technological advancement, Waresix enhances its social legitimacy and competitive advantage by embedding deep ethical business orientations—ensuring that its supply chains remain clean, fair, and environmentally friendly. As such, Waresix represents a compelling case of the EL-BAIT model's application in the logistics and transportation industry, illustrating how ecotheological values can be operationalized to drive sustainable innovation.

4. Conclusion

This study concludes that the success of technopreneurship in the digital era is no longer solely determined by the ability to generate disruptive technological innovations. Rather, it also depends on the strategic capacity to align technological innovation with the principles of shariah compliance and environmental sustainability. By integrating theoretical frameworks such as the Triple Bottom Line (TBL), Stakeholder Theory, the Technology–Organization–Environment (TOE) framework, and maqāṣid al-sharīʿah.

Case studies such as Bank Syariah Indonesia (BSI), Waresix, and JALA Tech provide empirical support that ecotheology-based technopreneurship models are not only feasible but also generate tangible positive impacts on society, local economies, and environmental preservation. These findings affirm the relevance of the conceptual model of Ecotheology-Based Innovative Technopreneurship (EL-BAIT) as an integrative approach for addressing both the climate crisis and the rapid growth of the global halal market simultaneously.

From a theoretical perspective, this study contributes to the expansion of the digital entrepreneurship literature by positioning sustainability and spirituality as core strategic components, rather than supplementary elements. This discourse enriches interdisciplinary studies in strategic management, social innovation, technological ethics, and Islamic values-based entrepreneurship.

Practically, the model offers a strategic reference for startup founders, impact investors, business incubators, and policymakers in formulating technopreneurial development strategies that are not only responsive to technological advancement but also ethically, morally, and ecologically accountable. Policymakers are encouraged to design policies and incentives that support sustainable digitalization, while educational institutions are advised to integrate ethics and sustainability values into technopreneurship curricula, especially into vocational study.

For scholars and researchers, it is recommended to develop sustainability evaluation instruments tailored to the context of developing countries like Indonesia. Despite its significant conceptual contribution, this study has several limitations. First, as a literature-based study, it does

not involve primary data collection from technopreneurs, thus resulting in conceptual and generalized findings. Second, the literature review is limited to publications from 2010 to 2025 accessed from selected databases, which may introduce selection bias and restrict the global perspective. Third, there is a lack of systematic mapping of strategic approaches across different industrial sectors such as agritech, edutech, and fintech.

Therefore, As a conceptual study, this paper lays the groundwork for empirical validation. future research should adopt a mixed-method approach by incorporating fieldwork, quantitative analysis, and in-depth case studies to validate and refine the EL-BAIT model. Such efforts are expected to enhance the model's applicability across sectors and disciplines.

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