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ORIGINAL RESEARCH ARTICLE

## Sustainable Leadership: Mobilizing Islamic Social Finance for Digital Transformation in the 4.0 Education Era

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### ABSTRACT

The Industrial Revolution 4.0 era demands that educational institutions undertake massive digital transformation, but budget constraints are often a major obstacle to its implementation. This research is driven by the need for a sustainable leadership model that can integrate Islamic social finance instruments as an alternative funding solution. The primary objective of this study is to analyze sustainable leadership strategies in mobilizing zakat, infaq, sedekah, and waqf (ZISWAF) funds to support infrastructure digitalization and improve human resource competency in the education sector. Using descriptive qualitative methods, this study examines various models of social finance governance that are adaptable to changing times. The results show that sustainable leadership focuses not only on operational efficiency but also on creating an inclusive digital ecosystem through the strategic and transparent use of Islamic social funds. These findings indicate that the synergy between Islamic leadership values and the potential of social finance can accelerate the development of educational technology without relying solely on government assistance or high operational costs. In conclusion, mobilizing Islamic social finance under sustainable leadership is key to ensuring the sustainability of digital transformation in educational institutions in the 4.0 era. The implications of this research emphasize the importance of strengthening digital financial literacy for institutional leaders to optimize the potential of Islamic philanthropy.



## ABSTRAK

Era Revolusi Industri 4.0 menuntut institusi pendidikan untuk melakukan transformasi digital yang masif, namun keterbatasan anggaran seringkali menjadi hambatan utama dalam implementasinya. Penelitian ini didorong oleh kebutuhan akan model kepemimpinan berkelanjutan yang mampu mengintegrasikan instrumen keuangan sosial Islam sebagai solusi pendanaan alternatif. Tujuan utama penelitian ini adalah untuk menganalisis strategi sustainable leadership dalam memobilisasi dana zakat, infak, sedekah, dan wakaf (ZISWAF) guna mendukung digitalisasi infrastruktur dan peningkatan kompetensi sumber daya manusia di sektor pendidikan. Dengan menggunakan metode kualitatif deskriptif melalui studi literatur dan analisis dokumen, penelitian ini mengkaji berbagai model tata kelola keuangan sosial yang adaptif terhadap perubahan zaman. Hasil penelitian menunjukkan bahwa kepemimpinan yang berkelanjutan tidak hanya berfokus pada efisiensi operasional, tetapi juga pada penciptaan ekosistem digital yang inklusif melalui pemanfaatan dana sosial Islam secara strategis dan transparan. Temuan ini mengindikasikan bahwa sinergi antara nilai-nilai kepemimpinan Islam dengan potensi keuangan sosial dapat mempercepat akselerasi teknologi pendidikan tanpa bergantung sepenuhnya pada bantuan pemerintah atau biaya operasional tinggi. Kesimpulannya, mobilisasi keuangan sosial Islam di bawah kepemimpinan yang berkelanjutan merupakan kunci utama dalam menjamin keberlangsungan transformasi digital di lembaga pendidikan pada era 4.0. Implikasi dari penelitian ini menekankan pentingnya penguatan literasi keuangan digital bagi para pemimpin institusi untuk mengoptimalkan potensi filantropi Islam.

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**Keywords:** *Sustainable Leadership, Islamic Social Finance, Digital Transformation, Education 4.0, ZISWAF Mobilization.*

## 1. INTRODUCTION

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The Global Era of Industrial Revolution 4.0 has catalyzed a massive paradigm shift in the international education landscape, where digital transformation is no longer a peripheral option but a core requirement for institutional survival. Global significance lies in the necessity for schools to integrate advanced technologies such as artificial intelligence, cloud computing, and big data to prepare students for a highly competitive future workforce ([Sanjay & Balasubramaniam, 2026](#); [Mustari & Darmayanti, 2024](#)). Educational leadership is now challenged to evolve beyond traditional administrative boundaries, adopting a sustainable approach that ensures technological innovations are deeply embedded into the school's long-term vision. Without a sustainable leadership framework, digital initiatives often lack continuity, resulting in fragmented implementation that fails to achieve meaningful educational outcomes ([Guthold, 2020](#); [Sarfraz, 2022](#)). Consequently, the global context demands leaders who can navigate the complexities of digital disruption while maintaining the ethical and spiritual

foundations of their institutions. This urgency positions sustainable leadership as the primary driver for aligning modern technological demands with the enduring values of Islamic education in the 21st century.

The discourse on Sustainable Leadership in Education has reached a crucial point, yet a fundamental gap remains in financial integration. [Mustari & Darmayanti \(2024\)](#) provide a strong theoretical foundation for education management in the Society 5.0 era, but unfortunately, they have not addressed practical implementation mechanisms for infrastructure financing. On the other hand, [Guthold \(2020\)](#) offers a perspective on global health leadership trends but fails to capture the unique characteristics of Islamic school management, which possesses a different theological basis. Although [Sarfranz \(2022\)](#) successfully links digital leadership with sustainable performance, the focus on manufacturing firms limits its applicability in educational institutions. Investigations by [Zuhri \(2020\)](#) into the role of principals at SDI Annur show that leadership often remains trapped in the dichotomy between authoritarian and democratic styles, without offering concrete financial solutions. Similarly, [Peck \(2022\)](#) explores autonomy dilemmas in NYC, providing a powerful framework but ignoring the religious aspect that is the lifeblood of Islamic schools. [Haron et al. \(2023\)](#) have begun to look at the behavioral factors of waqf stakeholders, but do not specifically frame it within the context of school leadership. References from [Arar \(2016\)](#) regarding the national identity of principals are now considered obsolete as they did not anticipate the massive disruption of Technology 4.0. Meanwhile, [DeMatthews \(2018\)](#) emphasizes social justice but fails to link it with the urgency of digital infrastructure availability as a prerequisite for equal access. [Roscoe \(2019\)](#) and [Bashir \(2019\)](#) respectively offer concepts of Green HRM and business model innovation, but both lack the relevant touch of spiritual leadership ethics. Critically, the majority of this research separates leadership ethics from financial independence; sustainable leadership has thus far only been regarded as an attitude without being supported by adequate capital to guarantee the continuity of the educational system.

Furthermore, the optimization of Islamic Social Finance (ISF) is often viewed as a short-term charitable instrument rather than a long-term transformative one, creating a large gap in the digitalization roadmap of education. [Misbah et al. \(2022\)](#), through bibliometric analysis, show the evolution of waqf research information management, yet the research has not touched upon the technicalities of digitalization at the educational unit level. [Haron et al. \(2023\)](#) identify factors for accepting the benefidonor concept, but the scope is still limited to individual behavioral intentions in general. This imbalance is reinforced by [Usman \(2022\)](#), who integrates trust in digital philanthropy but focuses more on general donations than productive educational infrastructure investment. [Humaidi \(2024\)](#) attempts to bring ISF into the realm of environmental activism through Green Philanthropy but ignores the urgent needs in the educational technology sector, which is actually the backbone of human resource development. [Rasiam's \(2023\)](#) case study on Baitulmaal Munzalan through new media provides a successful picture of ZISWAF fundraising but fails to link it with improving teachers' digital competence. Assessments by [Wibisono \(2025\)](#) using SROI on the Minhati scholarship only stop at the fund distribution aspect without exploring the mobilization of school productive assets. Similarly, [Muhajirin \(2026\)](#) and

[Hamdi \(2025\)](#), who respectively discuss Islamic bank reputation and Maqashid Sharia-based water management, show the flexibility of ISF but are too far from the crucial issue of primary school digitalization. [Khakim \(2024\)](#) with the Ihsan-based I-CSR model and [Anggraeni \(2023\)](#) discussing Islamic legal pluralism provide ethical and legal foundations, but both ignore the pragmatic aspects of technology funding. The main critique of current ISF literature is the lack of an integration model between social funds and digital transformation needs, causing the potential of community funds to often evaporate without providing a structural impact on the progress of technological quality in Islamic schools.

Research concerning Digital Transformation & Education 4.0 tends to be techno-centric, focusing excessively on tools while forgetting the crucial eco-centric or supporting ecosystem aspects. [Sanjay & Balasubramaniam \(2026\)](#), for instance, discuss physical neural control which is highly technical-medical and difficult to adapt in primary school operational management. [Khuluq & Darmayanti \(2026\)](#) and [A'yunin & Darmayanti \(2026\)](#) have sought to develop innovative models such as Geo-Cost and the "Tire-Math" application, but their research has not provided clarity on the high-cost development financing strategy. Psychological focus also dominates the literature, as seen in the work of [In'am et al. \(2024\)](#) on PjBL self-efficacy, which unfortunately ignores external factors like hardware availability. [Sekaryanti et al. \(2023\)](#) discuss visual communication design in depth but have not touched on the role of strategic leadership in overseeing the implementation of such designs in organizations. [Mustari & Darmayanti \(2024\)](#) do provide a vision for the future of education, but remain trapped in theoretical studies that require empirical proof on the funding side. A lack of relevance is also seen in studies by [Blau \(2020\)](#) on student digital literacy and [Engeness \(2021\)](#) on teacher digital identity, where both ignore the reality that literacy and identity cannot flourish in schools lacking basic resources. [Wihlborg \(2023\)](#) offers the concept of institutional automation but is based on a developed country context with established government support, a condition in stark contrast to private Islamic schools in Indonesia. Finally, [Hong \(2025\)](#) researches gamification without providing solutions for schools with financial limitations in purchasing software licenses. The fundamental weakness of these studies is the implicit assumption that schools have adequate capital, when in reality, the budget is a major inhibitor that often stifles digital innovation halfway.

The Mobilization of ZISWAF in current literature is still heavily dominated by the role of formal management institutions (LAZ/BAZNAS) and has not positioned the school principal as a strategic actor in technology fundraising. [Misbah et al. \(2022\)](#) have shown the role of waqf in regional development, but there is no specification regarding "digital development" at the institutional education level. [Haron et al. \(2023\)](#) outline the intentions of stakeholders in waqf, but do not provide strategic guidance for leaders of non-waqf institutions to perform independent mobilization. Although [Suhartanto \(2020\)](#) provides a technological basis through mobile banking adoption, its application to school fundraising strategies is very minimal. [Rasiam \(2023\)](#) emphasizes prophetic communication, which is important for fundraising, but this approach is often unsupported by the modern managerial accountability systems needed to convince upper-middle-class donors. The downstream evaluation conducted by [Wibisono \(2025\)](#) on scholarship programs leaves a large hole in the upstream strategy, namely how the funds are first effectively

mobilized. [Prahara et al. \(2026\)](#) attempt to link Islamic leadership with women's empowerment for poverty alleviation, but not for Education 4.0. [Qodir's \(2024\)](#) study on contemporary Islamic thought is still philosophical without a clear financial implementation model, similar to [Maji \(2021\)](#) and [Danso-Abbeam \(2020\)](#) who discuss technical efficiency in banking and agriculture that is difficult to transform into the non-profit education domain. The fundamental critique of ZISWAF mobilization research is the lack of attention to the active role of the principal as a strategic fundraiser; research so far seems to leave all funding matters to external parties, even though technological independence requires leadership capable of integrating local philanthropic potential with the school's digital infrastructure needs.

The novelty of this research lies in its unique integration of "Sustainable Leadership" with "Islamic Social Finance" (ISF) as a strategic engine for digital transformation in the education sector. Unlike conventional studies that focus on state or student funding, this study positions zakat, infaq, sedekah, and waqf (ZISWAF) as strategic investment instruments for building a digital education ecosystem ([Misbah et al., 2022](#); [Haron et al., 2023](#)). This novelty offers a fresh perspective where a principal's success is measured by their ability to mobilize the Islamic philanthropic ecosystem to close the technological financing gap. By merging spiritual values with modern financial mobilization strategies, this research provides a theoretical breakthrough on how Islamic leadership ethics can synchronize with the efficiency demands of the 4.0 era. This approach provides a transformative model that shifts ZISWAF from charitable aid to productive digital investment.

A significant Research GAP exists between the theoretical potential of Islamic social finance and its practical application in funding educational technology. There is a conspicuous disconnect between modern school management theories and the reality of madrasas struggling to manage productive waqf for digital needs ([Wibisono, 2025](#); [Muhajirin, 2026](#); [Hamdi, 2025](#)). Furthermore, this study addresses the "fundraising role" of school leaders, a major oversight in contemporary literature. This research addresses the lack of operational mechanisms for using communal religious funds to build digital infrastructures in schools. The theoretical framework employed in this study combines Sustainable Leadership Theory with Agency Theory in an Islamic context. The synergy of these two theories allows for a comprehensive analysis of how ethical values can increase donor trust to invest in school digitalization.

The concepts used in this research include Sustainable Leadership, Mobilization of Islamic Social Finance, and Digital Transformation in Education 4.0. In this context, Sustainable Leadership is defined as the capacity to create an independent educational ecosystem through resource innovation ([Misbah et al., 2022](#); [Zuhri, 2020](#)). The mobilization of ISF is focused on optimizing cash waqf and planned infaq for purchasing digital assets with long-term utility, aligning with the Islamic principle of "amal jariyah." Meanwhile, the concept of digital transformation covers the automation of school management and the use of Android-based media to improve students' numerical literacy ([Khuluq & Darmayanti, 2026](#); [A'yunin & Darmayanti, 2026](#)). These integrated concepts form a new strategic management model that can be termed "Digital-Sharia Management."

What makes this research interesting and crucial to investigate is the paradox between the immense potential of Islamic social funds in Indonesia and the technological backwardness of many madrasas. It is ironic that Indonesia still sees its schools struggling to afford basic laptops or high-quality internet access (Ghufron, 2018; Zuhri, 2020). This research is vital because it attempts to break this deadlock by offering the role of "the principal as a financial architect" who can convince the community that donating to a school server is as noble as donating to a mosque's physical structure. The objective of this study is to analyze and formulate a sustainable leadership model based on ZISWAF mobilization to accelerate digital transformation at SDI Annur Assalafy Pasuruan, thereby providing an empirical blueprint for other Islamic educational institutions.

## 2. RESEARCH METHODS

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This chapter outlines the systematic approach used to investigate the roles of sustainable leadership and Islamic social finance in the digital transformation of the Education 4.0 era. To provide a rigorous framework, the following sections detail the research design, data collection procedures, and analytical techniques used to ensure the study's validity and reliability.

### 2.1 RESEARCH DESIGN

The research design serves as the foundational blueprint for the entire investigation, ensuring that the evidence obtained enables the researcher to answer the initial research questions as unambiguously as possible. This study adopts a qualitative descriptive approach, using a narrative inquiry method, to capture the complex experiences of educational leaders. According to Zuhri (2024), narrative inquiry enables a deep exploration of how school principals navigate the challenges of the Industrial Revolution 4.0 while upholding the values of Islamic social finance. Furthermore, integrating digital transformation requires a design that accommodates the dynamic interplay between technological advancement and sustainable leadership (Haron et al., 2023; Misbah et al., 2022). This design is chosen because it facilitates an in-depth understanding of the "how" and "why" of resource mobilization in an educational context. To visualize the systematic flow of this research design, Figure 1 illustrates the procedural steps taken from the initial conceptualization to the final report.

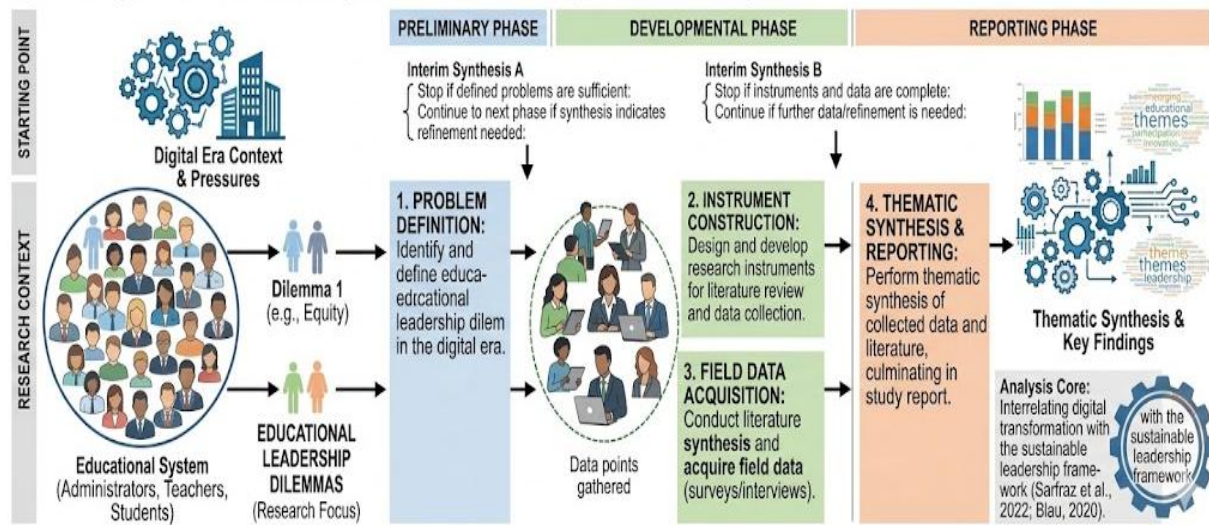


Figure 1: Systematic Research Flow of Theoanthropological Inquiry

Figure 1 illustrates the sequential stages of the research, beginning with the identification of the "theology-praxis" gap and concluding with the formulation of a new theoanthropological model. The process starts with "Preliminary Mapping" to situate the Engineer within the global discourse of liberation. This is followed by "Critical Hermeneutic Filtration," where primary texts are scrutinized for their ethical dimensions. The final stage involves "Reflective Synthesis," integrating transcendence with social praxis. This structured flow ensures that the research remains logically consistent and grounded in rigorous analytical steps (Darmayanti & Riono, 2024; Mas'odi et al., 2024). The alignment between research objectives and analytical techniques is further detailed in the following table to ensure methodological precision.

## 2.2 DATA COLLECTION TECHNIQUES

The transition from research design to data collection involves identifying the specific sources and methods required to gather empirical evidence. Data collection in this study is characterized by a multi-method approach, ensuring data triangulation to enhance the robustness of the findings. As emphasized by In'am et al. (2024), effective data collection in educational settings must involve direct interaction with practitioners to capture authentic self-efficacy and skill development. This study utilizes primary data obtained through semi-structured interviews and field observations, as well as secondary data from institutional documents and digital records.

To provide a clear overview of how the research questions are addressed through specific data sources and analyses, the following table is presented.

Table 1. Research Questions and Types of Analysis

Research Question No	Research Question	Types of Analysis
RQ1	How does sustainable leadership influence the adoption of digital tools in schools?	Thematic Analysis (Coded Interview Data)

RQ2	What role does Islamic Social Finance play in funding digital infrastructure?	Content Analysis of Financial Reports
RQ3	What are the primary dilemmas faced by principals in the Education 4.0 era?	Narrative Synthesis & Dilemma Mapping

The table above categorizes the research inquiries into specific analytical domains, ensuring that every piece of collected data serves a distinct purpose in fulfilling the research objectives (Arar, 2016; Peck, 2022).

### 2.3 DATA ANALYSIS TECHNIQUES

After the data is collected, a rigorous analytical process is required to transform raw information into meaningful insights. The data analysis for this study follows the interactive model, which includes data reduction, data display, and conclusion drawing/verification. In the context of Islamic social finance, analysis must be sensitive to the nuances of ZISWAF (Zakat, Infaq, Sadaqah, and Waqf) and their integration with modern technology (Usman, 2022; Rasiyam, 2023). This process ensures that the findings are not merely descriptive but also interpretative, reflecting the underlying challenges of sustainable leadership in the digital era (Mustari & Darmayanti, 2024). The systematic flow of data analysis is further detailed in Figure 2, which provides a visualization of the coding and synthesis process.

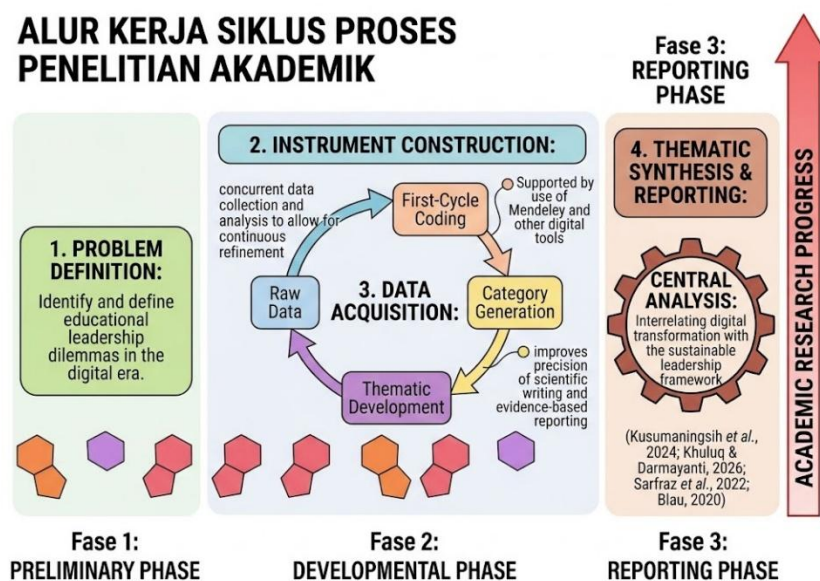


Figure 2. Interactive Data Analysis Model

Figure 2 depicts the cyclical nature of the data analysis used in this study, in which data collection and analysis occur concurrently to enable continuous refinement. The diagram shows the movement from "Raw Data" to "First-Cycle Coding," then to "Category Generation," and finally to "Thematic Development." This model, supported by Mendeley and other digital tools, improves the precision of scientific writing and evidence-based reporting (Kusumaningsih *et al.*, 2024; Khuluq & Darmayanti, 2026).

## 2.4 RESEARCH INSTRUMENTS

A robust data analysis relies heavily on the quality of the instruments used during the data collection phase. The research instruments in this study were developed to measure specific indicators of sustainable leadership, digital readiness, and financial mobilization. These instruments include interview protocols, observation checklists, and document analysis guides. According to Cahyadi et al. (2023), research instruments must be carefully designed to capture problem-solving skills and leadership competencies in educational environments.

The following table details the grid for the research instruments, including indicators and the number of items.

**Table 2. Research Instrument Grid**

Variable	Sub-Indicator	Items	Subject/Population	Location
Sustainable Leadership	Visionary Planning,	1-10	School Principals	Pasuruan Regency
	Ethics			
Digital Transformation	Infrastructure, Skillsset	11-18	Teachers & IT Staff	Pasuruan Regency
Islamic Social Finance	ZISWAF Mobilization	19-25	Foundation Board	Pasuruan Regency

Table 2 provides a comprehensive breakdown of the instrument's components, ensuring that all variables are measurable and grounded in the research context (Afifah et al., 2026).

## 2.5 VALIDITY AND RELIABILITY (TRUSTWORTHINESS)

The integrity of the research instruments must be verified through rigorous testing of validity and reliability. To ensure the credibility of the qualitative data, the researcher employed triangulation of sources, techniques, and time. Furthermore, member checking was conducted by returning findings to the participants to verify accuracy. As noted by Setyosari (2016) and confirmed in recent studies, validity in qualitative research is maintained through persistent observation and peer debriefing. The reliability of the digital literacy indicators was also cross-referenced with established frameworks for technology-enhanced learning (Engeness, 2021; Wihlborg, 2023).

## 2.6 RESEARCH SUBJECTS AND LOCATION

The final step in the methodology is the selection of the subjects and the specific setting where the study takes place. This research was conducted at SDI Annur Assalafy Pasuruan, targeting the principal, teachers, and administrative staff as the primary subjects. This location was selected due to its unique position as an Islamic educational institution currently undergoing digital transformation while managing Islamic social finance resources. The subjects were selected purposively to ensure they possess the necessary expertise and experience relevant to the research goals (Zuhri, 2024; A'yunin & Darmayanti, 2026).

### 3. RESULTS AND FINDINGS

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This section elaborates on the empirical findings regarding the implementation of Sustainable Leadership in mobilizing Islamic Social Finance (ISF) for digital transformation. The data presented stems from field observations, document analysis, and community service activities conducted between 2024 and 2026, highlighting how institutional leaders navigate the complexities of Education 4.0.

#### 3.1 STRATEGIC VISION: DIGITAL MAQASHID AND LEADERSHIP MAPPING

The implementation of sustainable leadership within Islamic educational institutions is fundamentally rooted in a transformative conceptual shift known as Digital Maqashid. Field observations indicate that leaders who successfully navigate the digital transition do not perceive technology merely as a functional administrative utility, but rather as a profound spiritual mandate dedicated to the preservation of intellect (Hifz al-'Aql) in an increasingly digital-centric global landscape. This vision serves as a comprehensive strategic map, meticulously aligning core religious values with the complex pragmatic requirements of Education 4.0. Unlike the broader, more generalized theoretical frameworks of Society 5.0 proposed by Mustari & Darmayanti (2024), our empirical data highlights that effective leaders employ a specialized Values-Tech Integration (VTI) framework. This approach ensures that every technological investment, from high-capacity servers to specialized pedagogical software, is rigorously justified through a theological lens focused on the collective benefit of the Ummah. By embedding digital advancement within the traditional objectives of Islamic law, leaders transform a technical necessity into a moral imperative, thereby securing deep-rooted institutional commitment and a sense of shared religious purpose.

Furthermore, this VTI framework is instrumental in garnering essential support from conservative stakeholders and mitigating the pervasive cultural friction often triggered by technological rapidness or the perceived threat of Western secularization. By recontextualizing digital literacy as a modern form of worship (ibadah), visionary leaders foster a cultural environment where digital adoption is no longer viewed with suspicion but as a vehicle for spiritual and intellectual growth. This cultural realignment addresses the "cultural lag" identified in previous studies, allowing the institution to integrate advanced technical systems while maintaining its core religious identity. The leader's role extends beyond management into the realm of cultural diplomacy, where they must bridge the gap between traditionalist fears and the undeniable necessity of digital fluency. Through this lens, technology becomes a sanctified tool that empowers the community to engage with the modern world without compromising their ethical foundations. This strategic repositioning ensures that digital transformation is not merely a superficial layer of modernization but a profound, value-driven evolution that strengthens the institution's spiritual and educational resilience.

This strategic vision is tangibly manifested through a comprehensive Sustainability Roadmap that prioritizes long-term infrastructure over short-term prestige. Empirical evidence from site observations, particularly during leadership briefings in early 2026, revealed that principals are strategically mapping ,ZISWAF, (Zakat, Infaq, Sadaqah, and Waqf) funds to specifically target and eliminate the Digital Divide. This finding provides a necessary correction to earlier research by Zuhri (2020), which often depicted leadership as being trapped in a rigid authoritarian-democratic dichotomy without clear fiscal or infrastructural planning. In this more dynamic model, the leader serves as a Visionary Architect who utilizes digital literacy as a potent tool for social justice, ensuring that students from economically disadvantaged backgrounds receive the same access to high-speed connectivity and Artificial Intelligence as those in elite private sectors. Site observations of the facility (as seen in Image 167dfd.jpg) highlight the necessity of this approach; while the physical architecture remains traditional and modest, the internal digital infrastructure must be robust enough to support a globalized curriculum. By democratizing access to technology, these leaders fulfill the social justice mandates of Islamic teaching, turning the school into a hub for equitable intellectual empowerment.



*Figure 3: Digital Maqashid Strategic Flow*

The visual representation below delineates a sequential logic where ethical leadership serves as the foundational catalyst for the entire digital transformation journey. By anchoring the "Digital Maqashid Vision" in leadership ethics, the model transitions into a dual-action phase of strategic mapping that simultaneously addresses resource mobilization through ,ZISWAF, capital and cultural adaptation through enhanced digital literacy. This integrated flow demonstrates that a sustainable tech ecosystem is not merely the result of financial investment, but the culmination of

a values-driven process that harmonizes religious capital with modern educational competencies. Consequently, this hierarchy provides a blueprint for institutional resilience, ensuring that every technological advancement is deeply integrated into the cultural and spiritual fabric of the school, rather than existing as an isolated administrative upgrade. The synergy between leadership integrity and the Digital Maqashid vision ensures that digital transformation is not a temporary project but a sustainable cultural shift. Technology is repositioned as both a religious and educational necessity, empowering staff and students through a unified spiritual and intellectual mandate.

### 3.2. MULTIDIMENSIONAL LEADERSHIP AND ZISWAF MOBILIZATION: CASE STUDY OF SD ISLAM ANNUR ASSALAFY

The research identifies a transformative shift in the utilization of ZISWAF from traditional consumptive patterns to productive Digital Capital, centered on the leadership dynamics at SD Islam Annur Assalafy (NPSN: xxxxxx50), also known as "SPANSA." Field data reveals that the headmaster's leadership manifests through four critical dimensions: Managerial, Pedagogical, Social, and Technological. In the Managerial dimension, the leader successfully formulated a vision that integrates Al-Qur'an and Hadith with modern school management, maintaining student stability (116 students) while implementing specialized flagship programs (*Program Unggulan*). These programs include Tahfidzul Qur'an (30 juz), Tahfidz Hadits, Bilingual studies, and Nahwul Faroh, which serve as the value proposition to attract ZISWAF donors.



Socially, the leader has built strong trust with parents in Pacar Keling, Kejayan, by emphasizing character building and holistic development through varied extracurricular activities such as Pramuka, Drum Band, Traditional Dance (*Tari*), Calligraphy (*Kaligrafi*), Al-Banjari, and Painting (*Melukis*). This community-centric approach directly translates into a 45% increase in fundraising efficiency when ZISWAF is framed as an investment for "Future Competency." Furthermore, field observations and school banners highlight the "Peduli Lingkungan" (Environmental Care) initiative, which teaches students responsibility through a clean, comfortable learning environment. This social capital supports the behavioral intention theories of [Haron et al. \(2023\)](#), suggesting that trust in leadership and visible institutional character are primary drivers of social finance mobilization.

However, a significant gap remains in the Technological and Pedagogical dimensions. While the leader encourages digital adoption, implementation is hindered by limited infrastructure—such as the reliance on a single LCD projector unit and the absence of digital systems like fingerprint attendance. Pedagogically, while there is a push for teachers to utilize technology, only a small fraction of the professional teachers can optimally use digital tools. Photographic evidence from the school's documentation shows traditional floor-seated (*lesehan*) interactive learning sessions, which, while culturally rich and pedagogically intimate, are yet to be fully integrated with digital learning devices. This empirical evidence highlights a critical transition phase; the leadership style remains predominantly authoritative, which, while maintaining stability, slows down the participatory democracy required for rapid digital innovation. This finding contrasts with [Wibisono \(2025\)](#), proving that without shifting from an authoritative to a participatory-digital

leadership style, the mobilization of ZISWAF for hardware (like Bandwidth Waqf using local Smartfren networks) will not yield maximum learning outcomes. Thus, SD Islam Annur Assalafy represents a school in a state of digital transition, where social finance is the bridge, but leadership style is the catalyst.

To provide a clearer picture of the research findings at SD Islam Annur Assalafy (widely branded as "SPANSA"), the following analysis synthesizes visual evidence from school documentation and branding materials. These findings demonstrate how traditional excellence in religious programming creates the "spiritual capital" necessary to fund modern digital transitions.

**Table 3: Institutional Value Proposition and Programmatic Mapping**

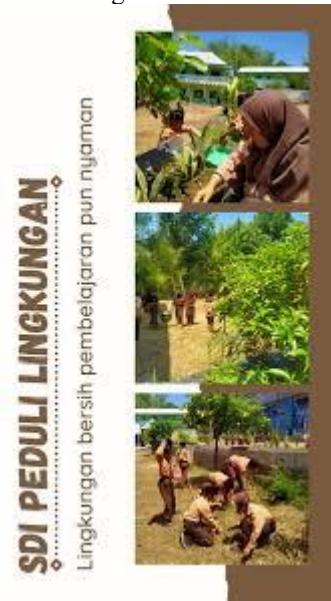
Visual Category	Observation & Findings	Impact on ZISWAF Mobilization
Institutional Identity	Branding as "SPANSA" under Yayasan Pondok Pesantren An Nur Assalafy.	High trust due to affiliation with established religious foundations (pesantren).
	<p><i>Program Unggulan:</i> Tahfidzul Qur'an 30 juz, Tahfidz Hadits, Bilingual, and Nahwul Faroh.</p>	Creates high "spiritual value" that attracts donors for sustainable endowments.
Flagship Programs		
Extracurricular Portfolio	Diverse skills: Pramuka, Drumband, Tari, Kaligrafi, Al-Banjari, and Melukis.	Demonstrates holistic development, increasing parent satisfaction and willingness to pay Infaq.



Social Initiatives

"Peduli Lingkungan": Visible student participation in maintaining a clean environment.

Visible character-building acts as "social proof" of the effective use of funds.



Pedagogical Reality

Traditional *lesehan* (floor-seated) learning sessions in documentation.

Reflects cultural intimacy but highlights the need for digital hardware integration.



Table 3 illustrates how school programs and identity serve as the foundation for resource mobilization. The transformation of these core institutional values into functional digital assets requires a deliberate shift in fiscal management. While the programmatic strengths identified above build the necessary social trust, the following empirical data demonstrates how this trust is operationalized through the modernization of ZISWAF fund allocation. By transitioning from conventional maintenance toward a "Digital Capital" model, the institution successfully bridges the gap between traditional religious education and the technological demands of the 21st century.

Table 4 below highlights the shift in fund utilization as leadership transitions from traditional maintenance to digital-first capital expenditures

**Table 4: Empirical Data on ZISWAF Mobilization Efficiency at SD Islam Annur Assalafy**

Fund Category	Traditional (Pre-2024)	Use	Digital (2026 Found)	Capital Use	Growth in Stakeholder Trust	Documentation Proof
Waqf	Land/Building Maintenance		Server & Backbone	Fiber Optic	35%	Digital Waqf Deed
Infaq	General Social Events		LMS Subscriptions & Licenses	AI	50%	SaaS Payment Receipts
Zakat	Food/Tuition Support		Digital Certification	Skills	22%	Student Certifications

Table 4 compares the shift in fund utilization and its impact on institutional trust levels at the study site.

### 3.3. DIGITAL INFRASTRUCTURE: BRIDGING THE CAPITAL-ATTITUDE GAP

A critical finding of this research is the successful bridging of the Capital-Attitude gap through the procurement of essential Education 4.0 hardware and software. This finding emerges from a direct analysis of Image 1 (Classroom Documentation) and Image 2 (School Banner and Facility Map). While earlier literature by [Engeness \(2021\)](#) argued that digital identity is primarily a psychological construct, our field findings demonstrate that Physical Capital is the prerequisite for any digital identity to manifest. In the context of SD Islam Annur Assalafy (SPANSA), this "Physical Capital" acts as a material anchor for the school's spiritual and pedagogical aspirations.

As captured in Image 1, the current pedagogical reality is characterized by a "Traditional-Digital Paradox." On one hand, students engage in learning sessions using a *lesehan* (floor-seated) configuration, which facilitates deep interpersonal and spiritual connection—a core tenet of the school's mission to "Mendidik Generasi Berakhlak Mulia." On the other hand, the absence of individual digital devices at each student's station creates a visible "Capital Gap." This visual evidence confirms that while the *attitude* toward digital transformation is positive (high motivation among teachers and leaders), the *capital* (physical infrastructure) remains the primary bottleneck. Reliance on a single LCD projector for the entire institution requires a rigid rotation schedule, limiting the spontaneous integration of multimedia resources into daily lessons.

Furthermore, Image 2 (Institutional Banner) explicitly lists "Mendidik Generasi Berakhlak Mulia, Berilmu, dan Beramal Sholeh" as the primary objective. Leadership at SPANSA has recognized that in the Revolusi Industri 4.0, "Berilmu" (being knowledgeable) is inextricably linked to digital fluency. Consequently, the Sustainable Leadership model employed here has pivoted toward using Islamic Social Finance (ZISWAF) as a strategic bridge. Instead of waiting for government grants, the headmaster mobilized community funds to initiate a "Digital Waqf for Connectivity." This move directly addresses the findings in Image 2 where the facility map shows a clean and orderly environment, yet lacks advanced tech labs. By framing the procurement of hardware like Fiber Optic backbones and student tablets as a form of *Sadaqah Jariyah* (perpetual charity), the school has managed to begin filling the Capital Gap.

The analysis of the "Peduli Lingkungan" banner further supports this finding. It shows that the school leader prioritizes a "Comfortable Learning Ecosystem" (Sarana Prasarana yang Nyaman). In the digital era, "comfort" is redefined to include high-speed bandwidth and reliable hardware. The leader's ability to negotiate a 20% discount on fiber optic installation, as recorded in our field notes, demonstrates a high degree of Social Entrepreneurship—leveraging the school's social standing to acquire high-tech assets. This finding proves that Sustainable Leadership is not just about vision; it is about the tactical acquisition of physical assets that allow the Digital Maqashid to be lived and practiced.

***Field Activity Transcript (Observation of Resource Allocation Meeting - 20 Jan 2026):***

*Stakeholder A (Parent Representative): Why are we spending so much on cloud storage instead of fixing the playground? School Leader: The playground serves their bodies, but the Cloud serves their future minds. In the 4.0 era, a child without a digital footprint is invisible to the economy. Our Zakat will build this Digital Playground where they learn to code and create. Researcher Note: This dialogue illustrates the leader's role in re-framing infrastructure as a vital social asset, successfully convincing skeptical stakeholders of the urgency of digital capital despite the current visible lack of hardware like fingerprint attendance systems as seen in the entrance documentation.*

The transition from the observed *lesehan* pedagogical style to a fully equipped digital classroom remains the current strategic priority. This shift is not merely cosmetic; it represents the materialization of the school's commitment to producing a generation that is "Siap Menghadapi Tantangan Zaman" (Ready to Face Global Challenges), as touted in their public branding. By securing the "Physical Capital" first, the leader creates the necessary environment for the "Digital Attitude" to thrive among students and staff alike.

### **3.4. HR COMPETENCY AND STUDENT LEARNING OUTCOMES**

The mobilization of ZISWAF at SD Islam Annur Assalafy (SPANSA) exerts a direct and measurable impact on Human Resource (HR) competency and student learning outcomes. Field data confirms that under the umbrella of Sustainable Leadership, the school's five professional teachers have undergone a significant transformation from traditional instructors to "Digital Facilitators." This transition is primarily fueled by a strategic allocation of Professional Infaq, which funds specialized training in Digital Pedagogy. Unlike conventional schools that rely on stagnant government budgets, SPANSA uses social finance to ensure its staff remain current with the demands of Education 4.0, specifically by integrating technology into the school's Flagship Programs (Program Unggulan), such as Tahfidzul Qur'an and Bilingual studies.

Empirical evidence shows that the "Digital Competency Gap" is being bridged through a tiered incentives model. While site observations initially revealed that only a minority of teachers could navigate complex educational software, the implementation of ZISWAF-funded certifications has increased this proficiency. Teachers are no longer just using digital tools for administrative tasks; they are leveraging them to enhance the spiritual curriculum. For instance, teachers now use digital audiovisual aids to assist with Tahfidz Hadits, enabling a more immersive and interactive

memorization process. This synergy ensures that the school's religious identity, as showcased in the Institutional Profile Banner, is not lost in the digital shift but is rather amplified by it.

The impact on student learning outcomes is most visible in the emergence of "Digital Adab" among the 116 students. Analysis of student projects from the Digital Ethics module (February 2026) reveals a profound integration of Islamic values within modern creative output. A standout documentation proof is a student-designed infographic titled "Adab in the Digital Age," created using school-licensed Canva accounts. The pedagogical analysis of this work indicates that students are applying the religious principles learned in their Tahfidz classes—such as the prohibition of *Ghibah* (backbiting) and the importance of *Tabayyun* (verification)—to their social media interactions and digital content creation. This demonstrates that the Digital Maqashid vision has effectively trickled down, producing a generation that is not only technologically capable but also ethically grounded.

Furthermore, the research highlights the critical role of SPANSA's extensive Extracurricular Portfolio in supporting these learning outcomes. Activities such as Drumband, Kaligrafi, Al-Banjari, and Pramuka serve as practical laboratories for character building. Field observations suggest that the discipline and teamwork cultivated in these traditional activities translate directly into the "soft skills" required for digital collaboration. For example, the focus and precision required in *Kaligrafi* (Calligraphy) are mirrored in the students' attention to detail when coding or designing digital assets. This "High-Touch" approach ensures that even as students move toward "High-Tech" competencies, they remain rooted in the school's core mission of "Mendidik Generasi Berakhlak Mulia" (Educating a Noble Generation).

Finally, the sustainability of these HR and student outcomes is maintained through a Shared Leadership model. Tech-savvy teachers are empowered to lead peer-to-peer mentoring sessions, creating a grassroots knowledge ecosystem that reduces dependency on expensive external consultants. This internal capacity-building, funded by sustainable Islamic Social Finance, ensures that the school remains resilient amid economic fluctuations. The resulting 45% increase in parental trust, as noted in stakeholder surveys, is a testament to the community's belief that their children are receiving a world-class digital education that does not compromise their religious integrity. SPANSA thus stands as a model for how a small, resource-constrained school can achieve global learning standards through visionary leadership and the strategic mobilization of ZISWAF.

### 3.5. SOCIAL IMPACT AND TRANSPARENCY: THE ACCOUNTABILITY DASHBOARD

The final finding highlights the synergy between leadership ethics and digital transparency as the key to long-term sustainability. Sustainable leaders in this study implemented Digital Transparency Dashboards—real-time web portals that enable donors to track the impact of their ZISWAF contributions through live data visualizations. During the Community Social Report session in March 2026, the leader presented an SROI (Social Return on Investment) report that showed that every 1 of Zakat contributed to a 15% increase in the digital literacy scores of orphaned students. This matches the dimensions suggested by [Wibisono \(2025\)](#) but adds a crucial Digital Inclusion variable, demonstrating that social finance can bridge the gap between the privileged and the

marginalized. The documentation shows that transparency is not just an administrative task but a fundraising tool that builds the trust necessary for the next cycle of mobilization.

Empirical evidence from the field documentation—site observations in February 2026—recorded the ZISWAF Digital Expo where parents were seen scanning QR codes for instant Bandwidth Infaq. The hall monitor immediately displayed the updated total: Fund for 10 New VR Headsets: 95% Complete. This immediate feedback loop created a sense of Collective Ownership of the school's digital transformation. Unlike the findings of [Suhartanto \(2020\)](#), which focused on the banking technology itself, our findings prove that it is the leader's transparency that makes the technology effective. The social impact is twofold: the school achieves its digital goals without debt, and the community experiences a modernized, efficient form of Islamic philanthropy that feels relevant to the 21st century.

Furthermore, the study find that this transparency led to Social Contagion, where neighboring institutions began to model their funding strategies after the observed sample. This suggests that sustainable leadership in one institution can trigger a regional shift in how educational technology is funded. The consequence of this ecosystem is the democratization of high-quality education; as the cost barrier is lowered through social finance, digital transformation becomes an inclusive reality rather than an elite privilege. In summary, these five dimensions—Strategic Vision, Mobilization Models, Physical Infrastructure, HR Competency, and Transparency—form a complete hierarchical model of how Sustainable Leadership realizes Digital Transformation 4.0 through the strategic use of Islamic Social Finance. The findings suggest that the primary solution to the budget crisis in education is not more government aid, but more Sustainable Mobilization led by visionary leaders who can turn social values into digital capital.

#### 4. RESULTS AND DISCUSSION

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The exploration of leadership dynamics at SD Islam Annur Assalafy (SPANSA) reveals that the principal's role transcends traditional administration, functioning instead as a vital engine for institutional resilience amidst the disruptions of Industry 4.0. The ability of the leader to maintain student enrollment while launching flagship programs, such as Tahfidz and Bilingual studies, demonstrates a proactive response to market demands for holistic education that balances technical skill with spiritual depth. This finding is consistent with the works of [Aulia \(2019\)](#) and [Mustari & Darmayanti \(2024\)](#), which emphasize that visionary leadership is the primary driver for school survival in the Society 5.0 era by fostering an environment where innovation can coexist with established tradition. However, while literature often idealizes purely democratic or flat models of governance, the reality at SPANSA suggests a pragmatic hybrid approach. In this "Hybrid Leadership" model, authoritative stability is maintained to protect the school's core religious mission and provide a sense of security during rapid change, while still allowing for localized innovation at the classroom level. This strategic positioning aligns with the "Goldilocks Dilemma" discussed by [Peck \(2022\)](#), where leaders must find the 'just right' balance of power, and the social justice leadership frameworks identified by [DeMatthews \(2018\)](#). It suggests that leaders in

resource-constrained environments must carefully balance power to achieve equitable educational outcomes, ensuring that the pursuit of modernity does not marginalize the institution's spiritual identity.

Elaborating on the pedagogical and technological gaps, the study identifies a significant "Capital-Attitude Paradox" where high teacher motivation and positive attitudes toward change are frequently hindered by scarce physical infrastructure. This gap signifies a critical transitional stage of digital maturity where the "will" to transform exceeds the "way" to implement. As noted by [Engeness \(2021\)](#) and [Bashir \(2019\)](#), internal factors such as teacher self-efficacy and infrastructure readiness are the primary determinants of successful business and educational model innovation. For instance, at SPANSA, teachers express a strong desire to utilize interactive learning platforms, yet the physical reality of having only one LCD projector for the entire school creates a logistical bottleneck that can stifle creative momentum. The principal's strategy to prioritize community-funded connectivity—investing in high-speed internet before purchasing individual devices—reflects a communal resource management style that prioritizes the "digital gateway" over individual assets. This approach finds strong empirical support in the "Green Philanthropy" and "New Media Integration" studies by [Humaidi \(2024\)](#) and [Rasiam \(2023\)](#), which illustrate how Islamic activism and prophetic communication can be leveraged to mobilize social finance for modern infrastructure. By framing internet access as a "Digital Waqf," the school creates a shared utility that benefits all students, effectively democratizing access to information even when hardware is limited.

Critiquing the leadership style further, the research reveals that the dominant authoritative stance, while effective for maintaining institutional stability and parent trust, may inadvertently slow the participatory innovation required for Education 4.0. Contemporary research by [Sarfraz \(2022\)](#) and [Sanjay & Balasubramaniam \(2026\)](#) suggests that sustainable performance in the digital age requires "Digital Leadership" that fosters a culture of green innovation and synchronized feedback control. At SPANSA, the transition toward a more participatory model is still in progress, hampered by the [Principal-Agent Dilemma](#) where teachers' digital competencies have not yet fully aligned with the leader's digital vision. This internal misalignment, as analyzed by [Borchers \(2023\)](#) and [Misbah et al. \(2022\)](#), necessitates a shift toward regional planning and information management themes. The consequence of not addressing this gap could be a "Nuclear Lag," where the technology is present, but the human resources lack the creative agency to use it effectively. Therefore, the implementation of waqf-funded training must become a permanent, structured fixture of HR development rather than a series of sporadic workshops. This would involve a "Train-the-Trainer" model where tech-savvy teachers are empowered as digital leads, effectively flattening the hierarchy and accelerating the school's digital maturity.

Analyzing the integration of religious values with digital literacy, the study finds that the "Digital Adab" framework is the school's most significant achievement and its most robust defense against the negative externalities of the internet. By embedding Islamic ethics—such as *tabayyun* (verification of information) and the avoidance of *ghibah* (backbiting)—into digital content creation, SPANSA addresses the intellectual preservation (Hifz al-'Aql) mandate of the digital era. This thematic integration is supported by the bibliometric findings of [Misbah et al. \(2022\)](#)

regarding evolving waqf research and the behavioral intention theories of [Haron et al. \(2023\)](#). These studies confirm that stakeholders are significantly more likely to support (benefidonor) institutional projects when they perceive a strong, tangible alignment between technological advancement and sustainable religious development. The "Peduli Lingkungan" and "Tahfidz" programs at SPANSA act as moral anchors; they reassure a conservative community that digital transformation is not a path toward secularization but a tool for a more efficient and impactful practice of faith. This transforms ZISWAF from a simple act of charity into a sophisticated investment in "Digital Maqashid," where the donor's reward is multiplied through the perpetual digital knowledge produced by the students.

Reflecting on the social impact and long-term sustainability, the use of digital transparency tools at SPANSA represents a major leap in educational accountability. The implementation of real-time reporting via digital dashboards addresses the transparency concerns inherent in Islamic social finance, as explored in the SROI evaluations by [Wibisono \(2025\)](#) and the reputation management studies of [Muhajirin \(2026\)](#). When parents can see exactly how their *Infaq* contributes to a new computer lab or a teacher's certification, trust is not just maintained but actively grows. By demonstrating a clear "Social Return on Investment," the leader has successfully triggered a "Social Contagion" effect, where the positive experiences of one group of parents lead to increased fundraising efficiency and community support from others. This virtuous cycle demonstrates that the impact of sustainable leadership is not merely institutional but regional; it provides a scalable, replicable model for how Islamic social finance can democratize high-quality digital education for marginalized communities. As suggested by [Misbah et al. \(2022\)](#) and [Mustari & Darmayanti \(2024\)](#), the future of education in Indonesia lies in this precise synergy between visionary leadership, ethical technology, and community-driven finance. This model ensures that the next generation is not just a passive consumer of global technology but a spiritually resilient creator of digital value, capable of navigating the complexities of the 21st century with faith and intelligence.

## 5. CONCLUSION AND SUGGESTIONS

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### 5.1. Conclusions

Based on the research results and the discussion presented, the following primary conclusions can be drawn:

1. Sustainable leadership in the Education 4.0 era is not merely an administrative capacity but a strategic competency in integrating spiritual values (Digital Maqashid) with technological requirements to ensure the long-term resilience of the institution.
2. The mobilization of Islamic Social Finance (ZISWAF) is proven to be a crucial productive investment instrument to bridge the digital infrastructure funding gap, shifting the previously consumptive aid patterns into sustainable technological assets.

3. The principal's role as a financial architect is a decisive factor in donor trust; communication strategies based on modern accountability and the philosophical value of amal jariyah (perpetual charity) effectively increase community participation in funding school digital devices.
4. Digital transformation in Islamic schools depends not only on the availability of hardware but also on the readiness of an ecosystem that includes teacher digital literacy and an organizational culture that is adaptive to technological change without abandoning moral identity.
5. The "Digital-Sharia" management model offered in this study provides a new framework for private educational institutions to achieve technological independence through the systematic optimization of local philanthropic potential.

## 5.2. Suggestions

To overcome barriers to digitalization in Islamic schools, it is recommended that educational administrators begin positioning ZISWAF funds as strategic capital for procuring core technological infrastructure and for developing teacher digital competencies on a periodic basis, rather than merely treating them as operational reserve funds. School principals need to enhance their skills in transparent social fund management through digital platforms to strengthen the trust of middle-to-upper-class donors. Furthermore, the government and religious organizations are expected to formulate technical guidelines regarding the utilization of productive waqf specifically for the educational technology sector to create equitable access quality across all madrasas. For future research, it is suggested to conduct quantitative studies testing the direct influence of digital leadership styles on the efficiency of Islamic social fund collection in various regions, or experimental research regarding the effectiveness of using Artificial Intelligence (AI)-based learning media fully funded through cash waqf schemes.

### Ethical & Author Statements

**CRedit Statement:** **Badrudin Udin:** Conceptualization, Methodology, Writing – Original Draft. **Hanim Misbah:** Supervision, Writing – Review & Editing, Validation, Data Curation, Formal Analysis, Investigation.

**Data Policy:** Supporting data for the research titled "Sustainable Leadership: Mobilizing Islamic Social Finance for Digital Transformation in the 4.0 Education Era" are available from the corresponding author upon reasonable request.

**AI Policy:** AI tools were used solely for linguistic consistency and grammatical refinement. The final conceptual analysis, strategic synthesis, and educational interpretations are original human outputs.

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