



Digital Education at UIN Sunan Gunung Djati: A Review of Regulation, Leadership, and Institutional Development Toward World-Class University

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Abstract. Digital-based education has become a global paradigm that requires a comprehensive transformation in regulations, management, leadership, and institutional frameworks within higher education. This study aims to identify global issues in digital education relevant to Islamic higher education institutions; analyze UIN Sunan Gunung Djati Bandung's strategic responses and policy adaptations to these global demands; describe internal and external challenges during the digital transformation toward a World Class University (WCU); and provide strategic recommendations for a sustainable and globally competitive digital education system. This research employs a literature review, collecting data through analysis of institutional documents, and online news tracking related to digitalization, leadership, and higher education regulations. The findings reveal that UIN Bandung addresses global challenges—such as technological disruption, digital inequality, and accreditation demands—by strengthening online learning regulations, modernizing digital-based management services, fostering transformational leadership, and establishing adaptive digital institutions. Key challenges include infrastructure limitations, uneven digital literacy, limited internationalization of digital programs, and a slow organizational cultural shift. To overcome these issues, the university implements comprehensive strategies, including strengthening digital infrastructure, reforming globally oriented curricula, enhancing digital competencies among academic communities, and promoting international collaboration. The study emphasizes that comprehensive institutional readiness is essential for UIN Sunan Gunung Djati Bandung to realize its vision as a World Class Digital University that is adaptive, ethical, and globally competitive.

Keywords: Global Issues, Islamic University, Transformational Leadership, Digital Transformation, World Class University.

1. Introduction

The rapid development of information and communication technology (ICT) has become a major driving force in the transformation of global higher education systems [1]. The Fourth Industrial Revolution has created an urgent need for universities to integrate digital technologies into learning, academic management, and institutional development, not only to increase competitiveness but also to survive in a fast-evolving global landscape [2]. Higher education institutions are now required to build inclusive and globally connected digital learning ecosystems [3]. In the context of digital higher education, Learning Management Systems (LMS), Artificial Intelligence (AI), big data, and integrated academic information systems are foundational elements of transformation [4]. While digital education offers flexibility, efficiency, and wide accessibility, it also raises serious challenges regarding governance, regulation, and ethical use of technology. Tony Bates argues that digital education should not be seen merely as a technological tool but as a systemic transformation that redefines access, structure, and the quality of learning [5]. Neil Selwyn also stresses that digital education is not only shaped by technology, but also by social, cultural, and political dynamics [6].

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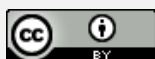
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In Indonesia, the Ministry of Education has initiated various policies such as Ministerial Regulation No. 109 of 2013, the "Merdeka Campus" initiative, and digital accreditation systems to support digital transformation in education [7]. However, implementation remains uneven due to infrastructure disparities, gaps in digital literacy, and lack of contextualized policies for Islamic higher education institutions [8]. This is particularly evident in State Islamic Higher Education Institutions (PTKIN), where integrating Islamic values into digital systems poses additional challenges [9]. UIN Sunan Gunung Djati Bandung, as one of the PTKINs developing a vision toward becoming a World Class University (WCU), faces the complexities of digital transformation across four fundamental domains: regulation, management, leadership, and institutional capacity [10]. Internal regulations must address issues such as data privacy, copyright protection, equitable access, and the ethical use of educational technology [11]. However, most PTKINs lack a Digital Ethics Committee or Islamic-based digital academic code of conduct.

Managerial aspects also require a paradigm shift. Digital campus governance must be data-driven and supported by integrated and reliable information systems [12]. Traditional bureaucratic models tend to slow innovation, whereas agile management structures have proven more adaptive in dynamic digital environments [13]. Effective digital academic management must involve participatory planning and transparent evaluation [14]. Leadership is another key determinant of successful digital transformation. Today's academic leaders must possess strategic vision, virtual communication skills, and data-based decision-making capacity [15]. Transformational leadership is particularly relevant for creating an innovative, collaborative, and change-oriented organizational culture [16]. In the context of Islamic education, leaders are expected to bridge religious values with modern technology [17].

Institutional frameworks must also be prepared to support systemic digital transformation. Centers for digital innovation, e-learning development units, and internal quality assurance bodies need to be well-established and staffed with competent human resources [18]. Research shows that institutions with adaptive governance and strong digital infrastructure are more likely to succeed in implementing sustainable digital education. Without a solid institutional foundation, digitalization risks becoming merely symbolic [19]. Prior studies have emphasized the integration of technology, values, and institutional readiness. Syed Muhammad Naquib al-Attas reminds us that Islamic education must prioritize *adab* and spiritual integrity, even within digital environments. Anderson and Dron further emphasize that meaningful online learning interaction must be rooted in pedagogical and social principles [20]. UNESCO, meanwhile, asserts that digital transformation in education must be built on principles of inclusion, equity, and sustainability [21].

Despite these insights, few studies have comprehensively analyzed the digital transformation of Islamic higher education through the fourfold lenses of regulation, management, leadership, and institutional capacity. This study thus aims to: (a) identify global issues in digital education relevant to the context of Islamic higher education institutions; (b) analyze UIN Sunan Gunung Djati Bandung's policy responses and strategic approaches to global demands for digitalization; (c) Describe internal and external challenges encountered during the transformation toward a World Class Digital University; and (d) Offer strategic, value-based recommendations to strengthen sustainable, adaptive, and globally competitive digital education systems within PTKIN environments.

2. Method

This study employed a descriptive qualitative approach, as described by Creswell, to explore and interpret institutional responses to global issues in digital education [22]. Such an approach enables researchers to gain a deep, contextualized understanding of how institutions perceive and implement digital strategies within their socio-cultural and policy frameworks. In this case, the study focused on how UIN Sunan Gunung Djati Bandung addresses digital transformation in relation to its vision of becoming a World Class University (WCU). The data were collected from both primary and secondary sources. Primary data included official documents, statements from institutional leaders (such as faculty deans and the head of the university's quality assurance board), and campus publications. Secondary data comprised scientific journal articles, national policy documents from the Ministry of Religious Affairs, and international reports relevant to digital higher education. The data collection process consisted of three techniques: (1) library research, which involved reviewing academic literature and regulations published in the last ten years; (2) institutional document analysis, covering the university's strategic plans, website content, and digital collaboration reports; and (3) online news tracking, used to capture up-to-date developments in digitalization, academic leadership, and regulatory trends in global higher education.

To analyze the data, the study used thematic analysis, following the procedures outlined by Braun and Clarke [23]. This involved three steps: (a) data reduction, where relevant content was selected based on thematic categories such as digitalization, regulation, management, leadership, and institutional structure; (b) theme categorization, through which findings were grouped and aligned with strategic dimensions of global relevance; and (c) drawing conclusions, which produced insights to answer the research questions and provide recommendations for institutional development. Rather than employing survey instruments, the study used a custom analytical matrix as its main research tool. This matrix consisted of three core indicators: (1) issue dimensions (digital, regulatory, managerial, leadership, and institutional), (2) UIN Sunan Gunung Djati Bandung's localized responses, and (3) their alignment with global digital education challenges. This structured approach supported the depth and coherence of the qualitative analysis.

3. Result and Discussion

3.1 Global Issues Affecting Digital Higher Education

In the current wave of digital transformation, higher education institutions around the world are dealing with several interrelated global issues that directly influence the development and implementation of digital learning systems. These include technological disruption, internationalization, digital access, cybersecurity, and digital accreditation. Advanced technologies such as Artificial Intelligence, the Internet of Things, Big Data, and digital platforms must be strategically integrated not only into curricula, but also into teaching methods and academic governance. UIN Sunan Gunung Djati Bandung, in its pursuit of becoming a World Class University (WCU), faces the dual challenge of aligning with these technological demands while preserving its Islamic and national identity. However, challenges remain in digital competence among lecturers, uneven infrastructure across faculties, and the absence of a deeply embedded digital learning culture. Institutional regulations often struggle to catch up with the rapid pace of technological advancement, calling for adaptive governance and innovation.

3.2 Efforts Toward Internationalization

Globalization requires UIN Bandung to open academic access beyond borders by adopting international digital standards. Initiatives such as MOOCs, joint-degree programs, and bilingual online learning platforms need to be expanded. The university must ensure its e-learning content meets global quality standards and provide foreign language support, user-friendly systems, and cross-border academic partnerships. Without these digital readiness measures, internationalization could remain a slogan with minimal practical impact.

3.3 Digital Access, Inclusivity, and Ethics

Digital inclusivity is critical for ensuring equal learning opportunities for all students. UIN Bandung must address the digital divide that still affects underprivileged or rural students who lack access to stable internet or devices. This calls for policy support, technological subsidies, and improved infrastructure. Equally important are cybersecurity and ethical considerations. With increasing reliance on LMS, cloud services, and online assessments, risks such as data breaches and academic dishonesty have escalated. UIN Bandung must establish robust internal policies on data protection, academic ethics, and cybersecurity, supported by continuous training for both students and faculty.

3.4 Digital Quality and Accreditation Standards

Ensuring the credibility and quality of digital learning is a prerequisite for both national and international accreditation. UIN Bandung has made significant efforts to develop digital assessment tools, enhance lecturer competencies, and ensure traceability and transparency in its online systems. The implementation of audit-ready LMS features and integration with national education databases such as PDDIKTI demonstrates progress, but ongoing development is needed to match global accreditation demands.

3.5 Institutional Responses Across Four Dimensions

3.5.1 Regulatory Framework

UIN Bandung has formalized the use of an official LMS through Rector Decrees, integrated academic data with national systems, reformed curricula in line with MBKM policies and global digital competencies, and developed internal regulations on ethical and safe use of technology. Coordination between academic, quality assurance, and ICT units ensures alignment with national and international standards.

3.5.2 Managerial Practices

The university has implemented digital academic services such as online registration, digital attendance, e-office platforms, and data-driven evaluation systems. Quality dashboards are used to monitor lecturer performance, and cloud computing facilitates strategic decision-making. Staff training in digital tools and systems has been prioritized to support effective digital governance.

3.5.3 Leadership

UIN Bandung's leadership promotes a transformational and collaborative approach to digital change. Institutional leaders encourage innovation, support cross-unit collaboration, and foster a digital culture. Investments in digital centers and active participation in global forums reflect the institution's commitment to international benchmarking and digital excellence.

3.5.4 Institutional Structure

Organizational reforms include the revitalization of the university's ICT and quality assurance units, the establishment of digital literacy and innovation centers, and the expansion of smart campus infrastructure. Academic units are encouraged to develop

their own digitalization roadmaps, engage with global platforms like Coursera or EdX, and publish in open-access formats.

3.6 Challenges in Implementing Global Digital Education

Despite progress, several challenges persist. Technological infrastructure remains uneven, with some faculties lacking reliable internet or digital classrooms. Digital literacy is inconsistent among academic staff and students. Financial limitations restrict large-scale innovation and limit the university's ability to build partnerships with the private sector. The internationalization of digital programs is still limited, and national regulations have yet to fully accommodate cross-border digital learning models. Institutional culture is also in transition; some stakeholders remain resistant to technological change, and cross-unit collaboration still lacks urgency and coherence.

3.7 Strategic Directions Toward a World Class Digital University

To address these issues, UIN Bandung must focus on nine strategic priorities: (1) developing an integrated and inclusive digital infrastructure; (2) transforming curricula to be global, bilingual, and digitally enriched; (3) improving digital competencies of faculty and staff through continuous professional development; (4) promoting digital internationalization through partnerships and joint programs; (5) reforming internal regulations to align with global e-learning standards; (6) strengthening institutional governance by empowering strategic digital units; (7) building a research and innovation ecosystem focused on digital Islamic education; (8) mobilizing sustainable digital funding through partnerships and competitive grants; and (9) cultivating a digital and innovative culture within the academic community. These efforts, if implemented consistently and inclusively, will serve as a foundation for UIN Bandung to establish itself as a resilient, adaptive, and globally competitive digital university.

4. Conclusion

The global issues of technological disruption, internationalization, digital inequality, cybersecurity, and digital accreditation have compelled UIN Sunan Gunung Djati Bandung to accelerate its digital transformation in higher education. In response, the university has made strategic advancements in regulatory development—including LMS policies, SIAKAD integration, adaptive curricula, and digital ethics—as well as in managerial modernization through digitized services, quality monitoring, and big data utilization. Leadership has embraced transformational models that foster digital culture and academic diplomacy, while institutional capacity has been strengthened through the empowerment of digital units like PTIPD, LPM, and the development of smart campus infrastructure. Despite these efforts, the university still faces notable challenges: disparities in digital infrastructure, uneven digital literacy among stakeholders, limited funding, insufficient internationalization of digital programs, misalignment with national regulations, and cultural transitions that hinder systemic change. To address these complexities and achieve the status of a World Class Digital University, UIN Bandung is implementing a comprehensive strategy involving the expansion of digital infrastructure, global curriculum transformation, the upskilling of academic human resources, and the internationalization of online learning. These efforts are supported by internal regulatory reform, institutional strengthening, development of an innovative research ecosystem, sustainable digital financing, and the cultivation of a campus-wide digital culture that is adaptive, inclusive, and globally competitive.

Based on the strategies outlined for UIN Sunan Gunung Djati Bandung in meeting global standards for digital higher education, future research is recommended to

empirically evaluate the effectiveness of the implemented digitalization strategies. Quantitative studies may be conducted to assess the impact of digital infrastructure, globalized curricula, and human resource competencies on the quality of learning and international competitiveness. Additionally, qualitative inquiries are essential to explore the perceptions of academic communities regarding digital culture shifts and the practical challenges experienced at the unit level. Comparative studies among Islamic State Higher Education Institutions (PTKIN) concerning their readiness to become World Class Digital Universities would also contribute significantly to the discourse and policymaking in Islamic higher education development across Indonesia.

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6. Declaration

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