

Digital Leadership Model in Private Universities in Palembang: Empirical Analysis and Proposed Strategic Transformation Model

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ABSTRACT

Purpose – This study analyzes the implementation of digital leadership in private universities in Palembang and develops a comprehensive digital leadership model that supports strategic transformation and sustainable innovation in higher education institutions.

Design/methodology/approach – This research employs a qualitative exploratory approach involving leaders from five private universities in Palembang. Data were collected through in-depth interviews and analyzed using NVivo 15 software. The analysis utilized Word Cloud, Treemap, and Hierarchy Chart visualizations to identify key themes, leadership patterns, and relationships among digital leadership dimensions.

Findings/Results – The findings indicate that current digital leadership practices are predominantly operational in nature and remain fragmented across seven key dimensions: digital vision, inclusive leadership, data-driven decision making, digital sustainability, empowerment and collaboration, technology adoption, and sustainable innovation. Based on these findings, a comprehensive digital leadership model is proposed, integrating both internal and external factors while emphasizing long-term digital strategies, stakeholder collaboration, institutional adaptability, and global competitiveness.

Originality/Value – This study contributes to the literature on higher education leadership by proposing a contextual digital leadership model tailored to private universities in Indonesia. The research also demonstrates the usefulness of NVivo-based qualitative visualization techniques in leadership studies and provides practical guidance for university leaders seeking to move from operational digitization toward strategic digital transformation and sustainable institutional development.

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1. Introduction

Digital transformation has become one of the strategic issues in organizational management, including in the higher education sector. Private universities (PTS) as part of the national higher education system face increasing pressure to adapt to technological advancements, improve the quality of the higher education tri dharma, and strengthen their competitiveness both regionally and globally (Nguyen et al., 2024). This transformation, however, cannot occur without effective leadership that understands and navigates the complexities of the digital era. Digital leadership plays a central role in guiding this transformation process. According to Kane et al., 2015, digital leadership is not merely about the use of information technology but also encompasses the ability to align vision, strategy, organizational culture, and sustainable innovation. This view is reinforced by Westerman et al., 2014, who emphasize that successful digital transformation requires leaders who can integrate technology into the core business strategy rather than treating it as a separate operational function. Furthermore, Khaw et al., 2022 and Tigre et al., 2023 define digital leadership as the ability of a leader to operate effectively in the digital age, combining technological competence with strategic orientation. The importance of digital leadership in higher education has been increasingly recognized in recent literature. Selwyn, 2021 demonstrates that the integration of technology in higher education not only affects learning methods but also influences institutional governance, including decision-making, strategic planning, and collaboration among stakeholders. Braojos et al., 2024 argue that leaders who foster continuous learning environments help strengthen organizational commitment and loyalty, which in turn enhances the overall effectiveness of digital transformation. Similarly, Olabiyi et al., 2025 contend that digital leadership in academic institutions is essential for aligning digital tools with academic strategies, ensuring that digital transformation efforts enhance long-term institutional performance.

Several studies have identified key dimensions that shape effective digital leadership. Avolio et al., 2001, in their foundational work on e-leadership, emphasized the importance of digital vision, inclusive leadership, and data-driven decision-making. García-Morales et al., 2011 added that sustainable innovation and multi-stakeholder collaboration are critical components, while Yoo et al., 2012 highlighted the role of digital sustainability in ensuring that transformation efforts are consistent and support long-term organizational goals. More recently, Banks et al., 2022 conducted a comprehensive review of leadership in the digital era, confirming that these dimensions remain relevant and interconnected.

Despite this growing body of literature, studies in Southeast Asia reveal persistent challenges in implementing digital leadership in higher education. Nguyen et al., 2024 found that private universities in the region often face obstacles such as limited resources, resistance to organizational culture change, and a lack of strategic integration. This finding is echoed by Wollscheid et al., 2025, who emphasize that developing a tailored leadership model is crucial for navigating the challenges faced by educational institutions in the digital era.

In the Indonesian context, research on digital leadership in private universities remains relatively limited. Most existing studies focus on specific technological applications such as e-learning or academic information systems, rather than examining digital leadership comprehensively as a strategic management function. Indriani, 2024 conducted a preliminary study on digital transformation at STIE APRIN Palembang, finding that while technology adoption is occurring, it has not been fully integrated into long-term institutional strategy. Saputra & Roostika, 2024 similarly noted that innovative leadership in the digital age requires

a fundamental rethinking of how leaders approach organizational change, yet this understanding has not been widely applied in Indonesian higher education.

The situation becomes even more complex in the context of Islamic higher education, where the integration of Sharia values must be a key element of every digital strategy. As Karakose et al., 2024 observe, digital leadership in Islamic institutions must not only integrate technology but also respect and incorporate ethical guidelines based on religious principles. Saputra et al., 2024 further argue that Islamic education management that integrates technology can create a more effective educational system aligned with Sharia principles, supporting sustainable innovation and long-term sustainability while maintaining core values.

In the context of PTS in Palembang, the digital leadership phenomenon becomes particularly relevant given the competitive dynamics between universities. These institutions face pressure not only in attracting new students and improving graduate quality but also in establishing partnerships with industry and ensuring institutional sustainability amid digital disruptions (Indriani, 2024). Parviainen et al., 2017 note that organizations often struggle to move beyond operational digitization to achieve strategic transformation, a challenge that appears to be present in the Palembang context.

The research gap this study addresses is twofold. First, while the literature provides robust theoretical frameworks for digital leadership, few studies have empirically examined how these frameworks apply in the specific context of Indonesian private universities. Second, existing research tends to focus on either the technological or the leadership aspects in isolation, rather than exploring the integration of vision, strategy, culture, and innovation that constitutes true digital leadership. As Ross et al., 2017 argue, developing a great digital strategy requires moving beyond operational efficiency to create new value propositions a transition that has not been adequately studied in the PTS context.

Therefore, this study has two main objectives:

- a. To identify the current (As-Is) digital leadership model practiced in PTS in Palembang.
- b. To propose a more comprehensive (To-Be) digital leadership model, oriented toward strategic, collaborative, and sustainable transformation.

By addressing these objectives, this study is expected to make a theoretical contribution to enriching the management literature on digital leadership in developing country contexts, as well as providing practical implications for PTS leaders in formulating adaptive digital leadership strategies. The study also responds to the call by Teece, 2018 for research that examines how dynamic capabilities and business models evolve in response to digital disruption, applying this lens to the higher education sector.

2. Methodology

This study employed an exploratory qualitative research design to obtain a comprehensive understanding of digital leadership practices within private universities (Perguruan Tinggi Swasta/PTS) in Palembang. The exploratory approach was considered appropriate because digital leadership remains a relatively emerging phenomenon in Indonesian higher education and requires in-depth investigation to capture its contextual characteristics and implementation processes (Matt et al., 2015; Vial, 2021). The study was grounded in a constructivist paradigm, assuming that digital leadership is socially constructed through the experiences, perceptions, and interactions of organizational actors. From an epistemological perspective, knowledge regarding digital leadership was generated through the interpretation

of meanings attached by university leaders and managers to their experiences in managing digital transformation. Methodologically, the research assumed that qualitative inquiry, particularly through in-depth interviews supported by NVivo 15 analysis, would be capable of capturing the complexity and nuances of leadership practices in the digital era. The study also relied on existing digital leadership frameworks as analytical lenses while remaining open to context-specific variations that might emerge from the Indonesian higher education environment (Avolio et al., 2001; G. C. Kane et al., 2015; Westerman et al., 2014).

The research was conducted in five private universities located in Palembang that had demonstrated experience in implementing digital transformation initiatives in academic, administrative, and governance activities. The institutions selected through purposive sampling included STIA Bala Putra Dewa, STIHPADA, Universitas Palembang, Universitas Shakyakirti, and Universitas Sumatera Selatan. Selection criteria included active accreditation status, documented technology adoption for at least three years, willingness of institutional leaders to participate, and diversity in institutional characteristics to ensure variation in experiences and perspectives. A total of fifteen informants participated in the study, consisting of five university leaders (rectors or vice-rectors), three deans, four heads of information technology units, and three academic managers directly involved in implementing digital policies. These participants were chosen because of their strategic positions in institutional decision-making processes and their direct involvement in campus digitalization initiatives, enabling them to provide rich insights into both operational and strategic dimensions of digital leadership.

Data collection was carried out between March and June 2025, a period characterized by post-pandemic recovery in Indonesian higher education institutions. During this time, universities were transitioning from emergency technology adoption toward more strategic and sustainable digital transformation initiatives. Primary data were collected through semi-structured, in-depth interviews lasting between 45 and 90 minutes. Interviews explored participants' understanding of digital leadership, implementation practices, challenges encountered during digital transformation, recommendations for future leadership development, and examples of successful or unsuccessful digital initiatives. Depending on participant preferences and availability, interviews were conducted either face-to-face at university offices or online via Zoom and Google Meet. Face-to-face interactions also enabled direct observation of technological infrastructure and workplace environments. To strengthen the data, secondary sources such as institutional strategic plans, digital transformation roadmaps, information technology development reports, accreditation documents, official university publications, websites, and observation notes were also collected and analyzed.

The collected data were analyzed using NVivo 15 software through several systematic stages. First, interview recordings were transcribed verbatim and subjected to open coding procedures to identify meaningful units related to digital leadership. Coding was conducted using both deductive approaches derived from existing literature and inductive approaches emerging directly from the data. Second, Word Cloud analysis was used to identify dominant terms and recurring concepts appearing across interviews, thereby providing an initial visual representation of key themes. Third, Treemap analysis was employed to organize coded data into hierarchical categories and visualize the proportional distribution of major themes and subthemes. Fourth, Hierarchy Chart analysis was conducted to illustrate relationships among digital leadership dimensions and identify which themes occupied central or peripheral positions within participants' narratives. Finally, findings from these analytical techniques

were integrated to construct an empirical “As-Is” model of digital leadership practices, which was subsequently compared with established theoretical frameworks to identify gaps and formulate a proposed “To-Be” model for future development.

To ensure the trustworthiness of the findings, several validity and reliability strategies were implemented. Source triangulation was achieved by involving participants from different managerial levels and institutions with diverse characteristics. Method triangulation was applied through the combination of interviews, document analysis, observations, and multiple NVivo visualization techniques. Theory confirmation was conducted by comparing empirical findings with relevant digital leadership literature and consulting peer researchers to review interpretations (Brynjolfsson & McAfee, 2014; G. C. Kane et al., 2015; Westerman et al., 2014). Member checking was also undertaken by returning summaries of findings to selected participants for verification and feedback. In addition, the researchers maintained a detailed audit trail documenting coding decisions, analytical procedures, and research rationales, while reflective journals were used to identify and minimize potential researcher bias. Ethical principles were strictly observed throughout the study, including obtaining informed consent from all participants, ensuring confidentiality and anonymity when requested, securing institutional approval from participating universities, using data solely for research purposes, and reporting findings accurately without manipulation. These procedures enhanced the credibility, dependability, and authenticity of the resulting digital leadership models and ensured that the findings accurately reflected the realities experienced by private universities in Palembang.

3. Result and Discussion

3.1 Results

3.1.1 Word Cloud Analysis

To gain an initial understanding of the dominant themes emerging from the interviews, a Word Cloud analysis was conducted using NVivo 15 software. This analysis was used to identify the most frequently mentioned words in the qualitative data, providing insights into the main focus areas of respondents when discussing digital leadership in private universities (PTS). The results of the Word Cloud analysis became the basis for exploring the main themes to be deepened in subsequent analyses.

The preliminary analysis using the Word Cloud revealed dominant words such as “digital,” “technology,” “data,” “collaboration,” and “innovation.” This indicates that the perception of digital leadership in PTS in Palembang is still strongly associated with technical aspects, particularly the use of information technology to support learning and administrative activities. This reflects an operational focus (Parviainen et al., 2017).

However, the dominance of these technical terms also suggests that digital leadership has not yet been fully understood as a long-term managerial strategy. The understanding is still more focused on the application of technological systems (e.g., Learning Management Systems and e-libraries) rather than on integrating them into strategic planning.

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3.1.2 Treemap Analysis

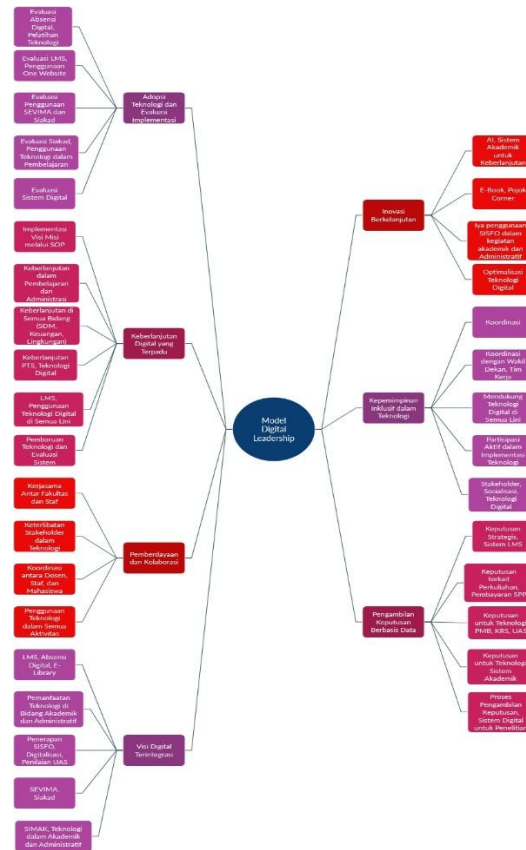
After gaining an initial overview through the Word Cloud analysis, the study proceeded with a Treemap analysis using NVivo 15. The Treemap analysis aimed to map the distribution of dominant themes emerging from the interviews, revealing which aspects were most frequently discussed by respondents and how subthemes were interrelated. Therefore, this analysis not only showed the frequency of theme occurrences but also displayed the structure of digital leadership themes that are developing in private universities.

The Treemap analysis revealed dominant themes including:

- Integrated Digital Vision
- Inclusive Leadership in Technology
- Data-Driven Decision Making
- Digital Sustainability
- Empowerment and Collaboration
- Technology Adoption & Evaluation
- Sustainable Innovation

This theme distribution shows that digital leadership dimensions already exist in PTS managerial practices, but their implementation is uneven. For example, a digital vision is present but not fully integrated into long-term planning; data-driven decision-making is being carried out, but it is limited to an administrative level rather than a strategic one. In other words, the results indicate that implementation is still partial.

Figure 2. Treemap Analysis Result



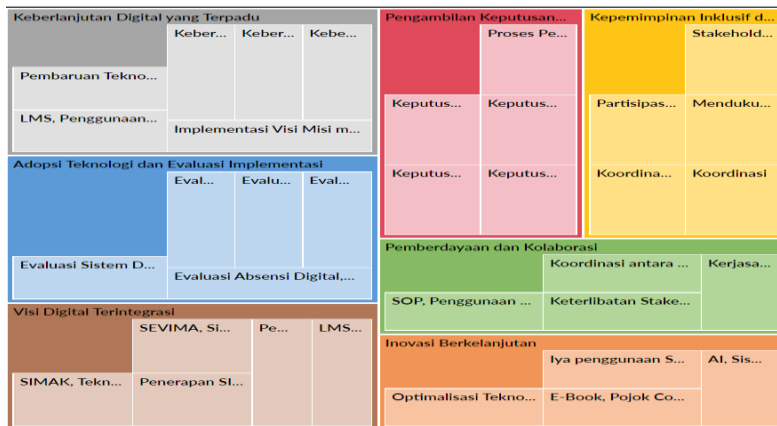
3.1.3 Hierarchy Chart Analysis

After identifying the dominant words through Word Cloud and the distribution of themes through the Treemap, the analysis continued with a Hierarchy Chart using NVivo 15. The purpose of this analysis was to illustrate the interconnection between the factors forming digital leadership. Thus, the Hierarchy Chart not only displayed the dominant themes but also demonstrated how these themes relate to each other and which ones are considered central in the practice of digital leadership in private universities.

The Hierarchy Chart on figure 3 showed that digital vision is a central element linking other dimensions such as inclusive leadership, data-driven decision-making, and innovation. However, the interconnections between these elements remain weak. For instance, digital sustainability is perceived more as system maintenance rather than integration into institutional policies (Ross et al., 2017).

These findings reinforce the view of (Avolio et al., 2001) regarding e-leadership, indicating that digital leadership must integrate vision, culture, and technology for transformation to be effective.

Figure 3. Hierarchy Chart Result



3.1.4 As-Is Model of Digital Leadership

Based on the results of the Word Cloud, Treemap, and Hierarchy Chart analyses, a representation of the As-Is digital leadership model in PTS in Palembang can be constructed. This model has the following characteristics:

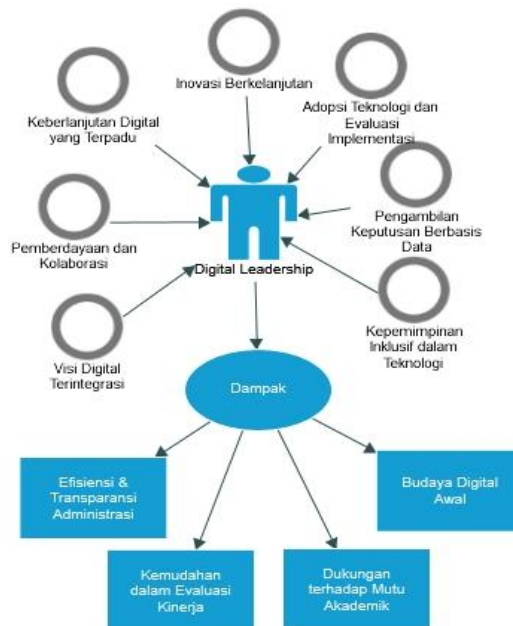
- Input: Digital vision, inclusive leadership, data-driven decision-making, digital sustainability, empowerment, technology adoption, and internal innovation.
- Process: Technology implementation limited to the operational level (e.g., the use of LMS and academic information systems), internal coordination, and ad-hoc system evaluations.
- Output/Impact: Administrative efficiency, transparency, ease of performance evaluation, and the emergence of an initial digital culture.

In other words, the As-Is model still plays a role primarily as an administrative facilitator. The impacts generated are short-term and technical, without addressing strategic aspects such as enhancing competitiveness, fostering an inclusive digital culture, or driving academic innovation.

To clarify the relationships between these dimensions, the results are visualized in the following Concept Map on figure 4. The map shows seven key dimensions that form digital leadership: digital vision, inclusive leadership, data-driven decision-making, digital sustainability, empowerment and collaboration, technology adoption, and sustainable innovation. These dimensions serve as inputs driving the digital transformation process. However, the process remains focused on operational aspects, such as the implementation of Learning Management Systems (LMS), academic information systems, and internal coordination, which ultimately results in administrative efficiency, transparency, and ease of performance evaluation.

While these benefits are tangible, they remain short-term and technical. The model has not yet fully reached the strategic realm, such as the development of a mature digital culture, the integration of long-term vision, or the improvement of institutional competitiveness. Thus, the As-Is model indicates that digital leadership in PTS is still in the early stages of transformation, emphasizing system maintenance and internal efficiency over the development of a comprehensive, visionary digital strategy.

Figure 4. As-is Concept Map



3.2 Discussion

The discussion of these findings, supported by robust qualitative instruments (NVivo-based Word Cloud, Treemap, and Hierarchy Chart), highlights a critical gap between theory and practice. While the dimensions of digital leadership exist in practice, the analysis reveals their implementation remains fragmented and operational. This study's primary scientific impact lies in bridging this gap by proposing a contextual and holistic To-Be model, which is further discussed in the following section on its global implications

3.2.1 Alignment with Theory

The findings of this study show that digital leadership dimensions, such as vision, collaboration, innovation, and data use, are indeed present in managerial practices at PTS in Palembang. However, their application is still predominantly at the technical and operational levels.

This finding partially aligns with the theory (G. C. Kane et al., 2015; Westerman et al., 2014) which emphasizes that digital leadership is not just about the use of technology but also the integration of vision, strategy, and organizational culture to drive competitive advantage. The current condition of PTS in Palembang leans more towards technical digitization than strategic transformation, meaning that its long-term impact on institutional competitiveness remains limited.

3.2.2 Weaknesses of the As-Is Model

The research identified several weaknesses in the current As-Is digital leadership model in PTS in Palembang:

- The digital vision is not fully integrated into the institution's long-term strategy.
- Data-driven decision-making is still focused on administrative rather than strategic aspects.
- Sustainable innovation is limited to the use of basic technologies (LMS, e-library) and has not reached disruptive innovation.

- d. Collaboration occurs mostly internally, with limited external partnerships with industry or society.
- e. Digital sustainability is perceived as system maintenance rather than part of institutional policy.

In conclusion, the weaknesses of the current model include a vision that is not strategic, administrative data-driven decision-making, limited innovation, and low external collaboration.

3.2.3 To-Be Digital Leadership Model

In response to these weaknesses, the study proposes a more comprehensive To-Be digital leadership model. This model includes the integration of internal factors (digital vision, inclusive leadership, data-driven decision-making, innovation) and external factors (regulations from the Ministry of Education, technological advancements, student demands, industry partners, and socio-economic context).

The characteristics of the To-Be model include:

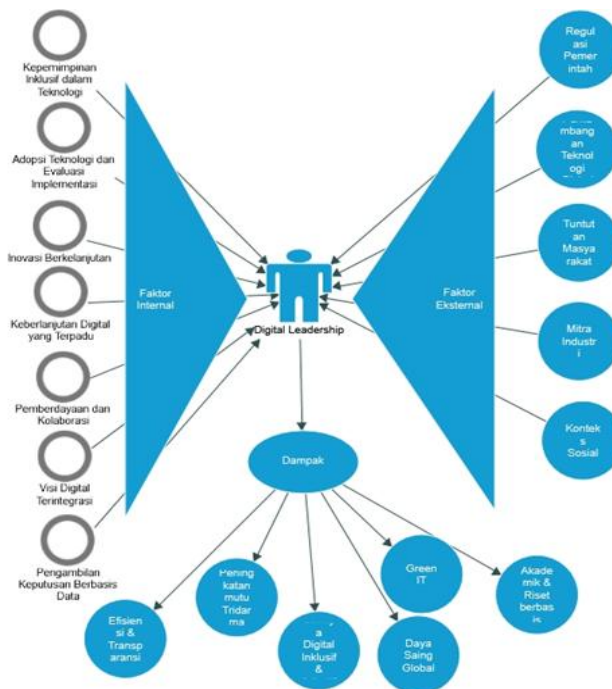
- a. Input: Integration of internal and external factors.
- b. Process: Formulation of long-term digital strategies, multi-stakeholder collaboration, adoption of sustainable technologies, strengthening innovation culture, and data-driven decision-making (Rogers, 2016; Vial, 2021).
- c. Output/Impact: Efficiency, improved tridharma quality, inclusive digital culture, global competitiveness, digital sustainability & green IT, as well as academic and research innovation.

The To-Be model is visualized in the Concept Map on Figure 5. The figure 5 shows that the To-Be model is more holistic, as it combines internal and external factors as inputs, which are then processed through the formulation of long-term digital strategies, cross-stakeholder collaboration, and strengthening innovation. The results from this process go beyond administrative efficiency and include improvements in tridharma quality, the creation of an inclusive digital culture, support for green IT, and global competitiveness.

This To-Be model emphasizes the importance of strategic and sustainable digital transformation, with digital leadership as the main driver of the integration of technology, academia, and society. In this way, private universities will not only be able to respond to technological changes but also play an active role in creating innovations and sustainability that support long-term competitiveness.

Moreover, this model stresses the importance of collaboration with the Shariah industry, such as Islamic banking and halal industry, in the digital transformation process. Islamic universities can strengthen multi-stakeholder collaboration by incorporating Shariah principles, which prioritize ethics and sustainability in the development of innovation and technology.

Figure 5. To-be Model Concept Map



3.2.4 Comparison of the As-Is and To-Be Models

The differences between the As-Is and To-Be models can be summarized in Table 1 below:

Table 1. Comparison of the As-is and To-be Models

Aspect	As-Is Model	To-Be Model
Main Focus	Internal factors (digital vision, technology adoption, internal collaboration, limited innovation)	Integration of internal & external factors (government regulations, societal demands, industry partners, technological advancements)
Orientation	Operational: administrative efficiency, transparency, performance evaluation	Strategic: global competitiveness, academic innovation, long-term transformation
Process	Technology implementation at the operational level, internal coordination, ad-hoc evaluations	Formulation of long-term digital strategies, multi-stakeholder collaboration, innovation culture, data-driven decision-making
Output/Impact	Efficiency, transparency, initial digital culture	Efficiency, improved tridharma quality, inclusive digital culture, digital sustainability, academic innovation, global competitiveness
Theoretical Alignment	Not fully aligned, leaning toward technical digitization	Aligned with theory (Kane et al., 2015; Westerman et al., 2014): strategic transformation based on digital leadership

This table clarifies the fundamental differences between the current state and the proposed model. The As-Is model focuses on the role of technology as an administrative tool, whereas the To-Be model positions digital leadership as a driver of institutional strategic transformation. The To-Be model also emphasizes strategic transformation, inclusive digital culture, academic innovation, and global competitiveness (Banks et al., 2022; Teece, 2018).

3.2.5 Global Impact of the Proposed Digital Leadership Model

In order to increase the global relevance and applicability of the proposed model, it is crucial to discuss its broader implications beyond the local context of private universities in Palembang. The proposed digital leadership model is not only relevant to Indonesia but can also have significant implications for global education systems. The following points illustrate its potential global impact:

a. **Alignment with Global Trends in Digital Transformation in Higher Education**

The global education sector is increasingly focusing on digital transformation as a means to enhance learning outcomes, institutional effectiveness, and global competitiveness. The proposed model aligns with these trends by emphasizing the importance of data-driven decision-making, sustainable innovation, and multi-stakeholder collaboration. Universities worldwide can benefit from adopting a similar approach, fostering collaborative environments across borders and adapting to rapid technological advancements.

b. **The Role of Digital Leadership in Shaping International Academic Collaboration**

The increasing use of digital platforms and collaborative technologies has reshaped the way universities engage in international academic partnerships. The proposed digital leadership model could be adapted to foster global academic networks and partnerships that transcend geographical boundaries. Through digital platforms, universities can engage in joint research initiatives, online learning, and shared resources, which can lead to more inclusive and diversified academic programs.

c. **Implications for Global Educational Policy**

The global shift towards digitalization in higher education calls for policy alignment between national and international frameworks. The model's emphasis on long-term strategic planning and digital sustainability can serve as a guiding principle for countries to implement national educational strategies that foster global competitiveness and academic excellence. Countries around the world could adopt similar models to bridge the digital divide and ensure that all higher education institutions are equipped to face the challenges of the 21st century education landscape.

d. **The Role of Digital Leadership in Supporting Internationalization in Higher Education**

The model can also support the internationalization of higher education by promoting cross-cultural digital literacy, facilitating global exchanges, and encouraging collaboration with international organizations. As universities around the world embrace digital transformation, they must also address global challenges such as socioeconomic disparities, access to education, and digital inclusion. The model's focus on inclusive leadership and data-driven decision-making can help universities tailor their strategies to be more responsive to global issues, making them more agile and adaptable in an increasingly interconnected world.

e. **Cultural Sensitivity and Global Adaptability of the Model**

One of the strengths of the proposed model is its cultural adaptability. While it has been designed with the context of Indonesian private universities in mind, its fundamental principles of inclusive leadership, sustainable innovation, and collaboration are globally

applicable. This flexibility allows the model to be adapted to various cultural and institutional contexts across the globe. For instance, universities in developing countries may emphasize affordability and accessibility, while institutions in developed countries may focus on cutting-edge technology and global research partnerships.

3.2.6 Theoretical and Practical Implications

a. Theoretical Implications

This study expands the management literature by presenting a contextual digital leadership model for private universities in Indonesia. The To-Be model offers a new conceptual framework that positions digital leadership as a driver of strategic transformation rather than just an administrative facilitator. It provides deeper insights into how digital leadership can integrate technology, strategy, and organizational culture for long-term sustainability and competitive advantage in higher education institutions.

The To-Be model aligns with theory (G. C. Kane et al., 2015; Westerman et al., 2014), emphasizing digital leadership as a strategic transformation driver rather than mere technical digitization. This research enriches management literature and provides practical guidance for PTS leaders in managing digital transformation.

b. Practical Implications

For university leaders, the findings of this study can serve as a guide in formulating more adaptive, collaborative, and sustainable digital leadership policies. Implementing the To-Be model will help private universities enhance the quality of tridharma, build a mature digital culture, strengthen external collaborations, and improve competitiveness both nationally and globally.

The proposed digital leadership model can be applied to various types of private universities, including those based on Islamic principles. Islamic higher education institutions can adapt this model by emphasizing Shariah values such as justice, transparency, and collaboration, aligning with Islamic ethics in digital leadership. This approach will enable universities to enhance their global competitiveness, optimize digital innovation, and create a sustainable educational environment consistent with Shariah principles (Brynjolfsson & McAfee, 2014; Khaw et al., 2022)

PTS should equip their leaders and administrators with ongoing digital leadership training. This training should include the adoption of the latest technologies, digital change management, and the development of strategic skills to integrate technology into institutional policies and decision-making processes (Avolio et al., 2001) .

PTS need to strengthen collaboration with the industry, government, and society to accelerate digital transformation. University leaders should play an active role in establishing strategic partnerships with both private and public sectors to support technology development and increase the university's global competitiveness (Westerman et al., 2014).

PTS should develop and implement policies that support sustainable technology (green IT) as part of efforts to reduce the environmental impact of digital operations. This includes the use of renewable energy, efficient data management, and the sustainability of hardware and software used across the campus (Büyükebeşe, 2022).

University leaders should adopt a data-driven decision-making approach in both academic and administrative spheres. Expanding the use of big data and data analytics can optimize decisions related to resource management, curriculum development, and student quality improvement strategies (Teece, 2018).

c. Policy Implications

The government should develop clear national policies regarding digital leadership in higher education. This may include the establishment of national standards for digital leadership in universities and offering incentives to institutions that successfully implement comprehensive digital transformations.

The government should offer fiscal incentives or subsidies to PTS that implement environmentally friendly technologies (green IT) and sustainable digital policies. This would encourage universities to invest in digital infrastructures that are not only efficient but also environmentally responsible.

The government should establish a national action plan to support digital transformation in higher education. This plan should include the development of national standards for digital leadership, relevant technology accreditation, and funding for research and development related to educational technologies.

The government should develop policies that facilitate collaboration between the government, universities, and the industry for the development and implementation of new technologies. These policies could include joint funding for technology-based research, as well as initiatives to accelerate the adoption of cutting-edge technologies in higher education.

For local governments and relevant ministries, this study offers insights into strengthening regulations and creating ecosystems that support digital transformation in higher education. Policy support, incentives, and cross-sector collaboration are necessary for private universities to enhance their capacity to implement digital leadership strategies effectively.

4. Conclusion and Suggestion

This study identified the current digital leadership practices in private universities in Palembang and developed a proposed model to support strategic digital transformation. The findings indicate that existing digital leadership remains predominantly operational, focusing on administrative efficiency and technology utilization rather than long-term institutional transformation. To address this gap, the study proposes a comprehensive digital leadership model that integrates internal and external factors, emphasizes strategic planning, data-driven decision-making, innovation culture, and multi-stakeholder collaboration. The proposed model contributes to the higher education leadership literature by offering a contextual framework tailored to Indonesian private universities, while also incorporating Sharia values into the digital transformation process. Methodologically, the study demonstrates the usefulness of NVivo-based qualitative visualization techniques in identifying and mapping digital leadership dimensions.

Given the limitations of the study, future research should expand the scope beyond private universities in Palembang to improve the generalizability of findings across different regions and institutional contexts in Indonesia. Researchers are also encouraged to adopt mixed-methods approaches and longitudinal designs to gain a more comprehensive understanding of how digital leadership evolves over time. Furthermore, future studies should examine the influence of digital leadership on institutional outcomes such as academic innovation, organizational performance, quality of tridharma implementation, and global competitiveness by employing quantitative analytical techniques such as SEM-PLS. These efforts will help strengthen the empirical foundation of digital leadership research and provide more robust guidance for higher education institutions undergoing digital transformation.

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