Jurnal Ilmiah Pendidikan Citra Bakti

p-ISSN 2355-5106 || e-ISSN 2620-6641

https://jurnal.citrabakti.ac.id/index.php/jil

POLICY AND POLITICAL DYNAMICS OF ICT GOVERNANCE AS AN ENTREPRENEURIAL UNIVERSITY TRANSFORMATION: A SYSTEMATIC LITERATURE REVIEW

Viktory N. J. Rotty[1)], Fridolin Kukus[2)], Fendy Aring[3)], Baginda Al Azhar[4)], dan Erric Kondoy[5)]
Tomi Itje[6)*]

Doctoral Program in Educational Management, Manado State University
*Corresponding author email: Tomiitje331@gmail.com

History article

Received:
June 9, 2026

Accepted:
July 22, 2026

Published:
August 24, 2026

Abstract

This paper aims to analyze the policy and political dynamics of ICT governance in encouraging entrepreneurial university transformation through the Systematic Literature Review (SLR) approach. The research method was carried out by examining various reputable scientific articles published in the range of 2015–2025 and obtained from the Scopus database, Web of Science, ScienceDirect, SpringerLink, and Google Scholar. The literature selection process follows the stages of identification, screening, eligibility, and inclusion based on the PRISMA guidelines. The results show that effective ICT governance is determined by the integration of digital policies, strategic leadership, regulatory support, infrastructure investment, and the involvement of various stakeholders in the decision-making process. In addition, institutional political dynamics have a significant impact on the successful implementation of digital transformation through resource distribution, policy priorities, and strengthening the culture of innovation. The research findings also identify various challenges, such as digital capacity gaps, organizational resistance to change, and mis synchronization between national policies and institutional needs. This study concludes that the synergy between adaptive ICT policies, participatory governance, and transformational leadership is a key factor in accelerating the transformation of universities towards an innovative, competitive, and sustainable entrepreneurial university model.

Keywords: ICT Policy; ICT Governance Policy; Transformation; Entrepreneurial University; Systematic Literature Review

Abstrak. Makalah ini bertujuan untuk menganalisis dinamika kebijakan dan politik tata kelola Teknologi Informasi dan Komunikasi (TIK) dalam mendorong transformasi perguruan tinggi menuju *entrepreneurial university* melalui pendekatan Systematic Literature Review (SLR). Metode penelitian dilakukan dengan mengkaji berbagai artikel ilmiah bereputasi yang diterbitkan dalam rentang tahun 2015–2025 dan diperoleh dari basis data Scopus, Web of Science, ScienceDirect, SpringerLink, dan Google Scholar. Proses seleksi literatur mengikuti tahapan identifikasi, penyaringan (*screening*), kelayakan (*eligibility*), dan inklusi (*inclusion*) berdasarkan pedoman PRISMA. Hasil penelitian menunjukkan bahwa tata kelola TIK yang efektif ditentukan oleh integrasi kebijakan digital, kepemimpinan strategis, dukungan regulasi, investasi infrastruktur, serta keterlibatan berbagai pemangku kepentingan dalam proses pengambilan keputusan. Selain itu, dinamika politik kelembagaan memiliki pengaruh yang signifikan terhadap keberhasilan implementasi transformasi digital melalui distribusi sumber daya, penentuan prioritas kebijakan, dan penguatan budaya inovasi. Temuan penelitian juga mengidentifikasi berbagai tantangan, seperti kesenjangan kapasitas digital, resistensi organisasi terhadap perubahan, serta ketidaksinkronan antara kebijakan nasional dan kebutuhan institusi. Studi ini menyimpulkan bahwa sinergi antara kebijakan TIK yang adaptif, tata kelola partisipatif, dan kepemimpinan transformasional menjadi faktor kunci dalam mempercepat transformasi perguruan tinggi menuju model *entrepreneurial university* yang inovatif, kompetitif, dan berkelanjutan.

Kata kunci: Kebijakan TIK; Kebijakan Tata Kelola TIK; Transformasi*; Entrepreneurial University; Systematic Literature Review (SLR)*

Background

Digital transformation has been the dominant narrative in global higher education reform over the past two decades. Various countries have made digitalization a strategic instrument to increase the effectiveness of governance, expand access to education, strengthen innovation capacity, and increase the competitiveness of higher education institutions. In this context, Information and Communication Technology (ICT) is no longer positioned simply as an operational support device, but rather as the main foundation in the formation of the future university model. However, the dominance of digital transformation discourse often results in normative assumptions that technology investment will automatically result in improved institutional performance and accelerate transformation towards *an entrepreneurial university*. This assumption needs to be critically examined because various empirical evidence suggests that the success of digital transformation is not solely determined by the availability of technology, but is highly dependent on the policy and political dynamics that surround it.

At the conceptual level, *an entrepreneurial university* is understood as a form of university evolution from a teaching-oriented and research-oriented institution (*research university*) to an institution that is able to create economic and social value through innovation, commercialization of knowledge, cross-sector collaboration, and the development of an entrepreneurial culture. This perspective places the university as a strategic actor in the national innovation ecosystem. However, most of the literature on *entrepreneurial universities* is still dominated by managerial approaches that emphasize aspects of leadership, innovation, and industry collaboration, while the political dimension in the process of institutional

transformation tends to be overlooked. As a result, the transformation towards *an entrepreneurial university* is often perceived as a neutral technocratic process, even though in practice it always involves power relations, negotiation of interests, and resource contestation.

On the other hand, the study of ICT governance in higher education generally departs from a rational-instrumental perspective that sees technology as a tool to improve organizational efficiency. This approach places ICT governance as a mechanism to align technology strategies with institutional goals. However, such an approach tends to ignore the fact that ICT policy is never born in a sterile space of political interests. Every decision related to technology investment, digital infrastructure development, data management, and transformation of academic services is the result of a political process involving actors with different interests and influences. Thus, ICT governance is not only a technical and administrative issue, but also an institutional political issue.

This issue becomes increasingly relevant when universities face pressure to transform into more innovative and entrepreneurship-oriented organizations. This transformation requires the redistribution of resources, changes in organizational structures, reform of work culture, and the formation of new patterns of relationships between universities, government, and industry. In such conditions, technology is often used as a symbol of institutional modernization, but its implementation does not always result in substantive changes. Many universities have succeeded in digitizing administrative services, but have failed to build an innovation ecosystem that is able to support the characteristics of *entrepreneurial universities*. This phenomenon shows that there is a gap between digitalization as a technological process and institutional transformation as a socio-political process.

Furthermore, there is an interesting paradox in the relationship between ICT governance and *entrepreneurial university transformation*. On the one hand, ICT governance is promoted as an instrument to increase flexibility, innovation, and collaboration. But on the other hand, various regulations and bureaucratic structures that regulate the implementation of ICT can actually create centralization of power, organizational rigidity, and restrictions on innovation. In other words, ICT policy can function as an enabler as well as a constraint for institutional transformation. This paradox shows that the success of transformation cannot be explained through technology perspective alone, but must be analyzed through the interaction between policy, power, and governance.

In the context of Indonesian higher education, the issue is increasingly complex because digital transformation is taking place in an ever-changing policy environment. Various national agendas such as Independent Learning Independent Campus (MBKM), Electronic-

Based Government System (SPBE), digitization of educational services, and strengthening national innovation require universities to adapt quickly. However, the implementation of these policies often faces challenges in the form of digital capacity inequality between universities, limited resources, policy fragmentation, and differences in interests between actors within the organization. This condition shows that the main issue is no longer whether technology is available, but how policies and governance politics direct the use of technology to achieve the goal of institutional transformation.

Although studies on digital transformation, ICT governance, and *entrepreneurial universities* have developed significantly, the existing literature still shows conceptual fragmentation. Some of the research focuses on ICT governance as a technology management issue, others discuss *entrepreneurial universities* from the perspective of innovation and entrepreneurship, while studies on institutional politics are more developed in the realm of public policy and education administration. As a result, there is still a limited understanding of how the dynamics of ICT governance policies and politics affect the transformation process of universities into *entrepreneurial universities*.

Kadir (2013) emphasized that higher education governance in the era of information technology must be able to align institutional strategies with technology strategies so that the use of ICT can support the effectiveness of academic services and institutional management. In line with that, Yunis (2014) explained that the main components of ICT governance include structures, processes, and relationship mechanisms that aim to ensure alignment between technology strategies and organizational strategies.

Furthermore, Pratiwindya's (2022) research shows that information technology governance has an important role in optimizing ICT resources to support the achievement of the vision and mission of higher education. However, technology investments often do not yield optimal benefits due to weak governance and the lack of integration of digital policies with institutional strategies.

Based on these arguments, this research departs from the assumption that the *transformation of entrepreneurial universities* is not a deterministic result of the adoption of digital technology, but a product of the complex interaction between policies, governance, and institutional politics. Therefore, a study that is able to synthesize these various perspectives comprehensively is needed. Through the *Systematic Literature Review* (SLR) approach, this study seeks to map the development of the literature, identify patterns of relationships between variables, and build a conceptual framework that explains how the policy dynamics and politics of ICT governance shape the direction of *entrepreneurial university transformation*.

Thus, the novelty of this research lies not only in the integration of the three fields of higher education policy studies, ICT governance politics, and *entrepreneurial universities* but also in the effort to present a critical perspective that views technology not as a neutral factor, but as an arena for policy and power contestation that determines the success or failure of the transformation of higher education institutions.

Method

This research uses the *Systematic Literature Review* (SLR) approach to identify, evaluate, and synthesize relevant research results regarding the policy dynamics and politics of Information and Communication Technology (ICT) governance in encouraging *entrepreneurial university* transformation. The SLR approach was chosen because it allows researchers to conduct a systematic, transparent, and structured study of various scientific literature so as to produce a comprehensive and academically accountable synthesis of knowledge. The research method refers to the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) guidelines which include four main stages, namely: *identification*, screening, *eligibility*, and *inclusion*). This stage is used to ensure that the article being analyzed has a strong relevance to the research focus as well as meets scientific quality standards (Sujatmika et al., 2023).

Results and Discussion

Literature Search Results Data

Literature searches were conducted on Scopus, Web of Science, ScienceDirect, SpringerLink, Emerald Insight, Taylor & Francis Online, and Google Scholar databases. The search uses a combination of *ICT Governance*, *Digital Transformation*, *Entrepreneurial University*, *Higher Education*, *Policy Dynamics*, and *Institutional Politics*. The article selection process follows the PRISMA 2020 guidelines which consist of identification, screening, eligibility, and inclusion stages.

Table 1. Distribution of articles by database

No	Basis Data	Number of Articles
1	Scopus	14
2	Web of Science	11
3	ScienceDirect	8
4	SpringerLink	6
5	Emerald Insight	9
6	Taylor & Francis Online	14
7	Google Scholar	11
Total		**73**

Table 2. Classification of Research Themes

Tema Utama	Number of Articles	Percentage
Higher Education ICT Governance	16	21,91%
Digital Transformation of Higher Education	14	19,17%
Digital Policy and Higher Education	21	28,76%
Institutional Politics and Leadership	10	13,69%
Entrepreneurial University	12	16,43%
Total	73	100%

Source: Results of classification and synthesis of research literature, 2026

Based on Table 2, the theme of Digital Policy and Higher Education has the largest proportion, namely 21 articles or around 28.77%. These findings show that the policy dimension is one of the main concerns in the study of the digital transformation of higher education. Policies not only function as regulations on the use of technology, but also as instruments that direct institutional strategies, resource management, digital infrastructure development, and organizational change.

The theme of Higher Education ICT Governance occupies the second position with 16 articles or 21.92%. This shows that digital transformation cannot be understood only as a process of technology procurement and utilization, but related to how institutions manage technology, data, human resources, information security, decision-making processes, and relationships between stakeholders. Studies on the readiness of digital transformation of universities in Indonesia also show that the success of transformation is influenced by contextual, technical, and cultural issues that need to be managed institutionally (Sujatmika et al., 2023).

The theme of Digital Transformation in Higher Education includes 14 articles or 19.18%. The literature on this theme generally places digital technology as a catalyst for change in academic processes, administration, student services, data management, and organizational development. Thus, digital transformation has a multidimensional character because it includes technological changes as well as changes in organizational processes, structures, competencies, and culture.

Meanwhile, the *theme of Entrepreneurial University* includes 12 articles or 16.44%. This proportion shows that the relationship between digital transformation and the entrepreneurial orientation of universities is still a relatively developed research space. From an entrepreneurial university perspective, digital technology can function as a strategic infrastructure to support innovation, commercialization of knowledge, student entrepreneurship development, collaboration with the business world, and the creation of economic and social value.

The theme with the smallest number was Institutional Politics and Leadership, which was 10 articles or 13.70%. Although the proportion is relatively lower, this theme has a strategic position because ICT policy and governance do not take place in a neutral space. Its implementation is influenced by leadership, organizational interests, distribution of authority, resource capacity, resistance to change, and the negotiation process between stakeholders.

Overall, the classification results show a close relationship between ICT policy, ICT governance, digital transformation, institutional politics, leadership, and entrepreneurial university orientation. The findings indicate that the transformation towards an *entrepreneurial university* is not enough to be carried out through the digitization of academic and administrative services, but requires changes in governance and policies that are able to integrate technology, leadership, innovation, and value creation orientation. Thus, the synthesis of literature leads to a proposition that ICT governance is a strategic instrument of institutional transformation, while organizational policies and politics are factors that determine the direction, speed, and sustainability of the transformation towards *an entrepreneurial university.*

Discussion

The results of the synthesis of 73 articles show that research on the governance of Information and Communication Technology (ICT) in higher education has experienced significant development during the period 2015–2025. These developments show a shift in research orientation from a technical approach to a strategic and institutional approach. In the initial phase, the research focuses more on the development of academic information systems, technological infrastructure, data security, and the implementation of e-learning. However, since 2020, the research focus has been increasingly developing towards digital transformation, data governance, artificial intelligence, digital leadership, and technology integration in institutional strategies (Benavides et al., 2020; Rahmadi, 2024).

This change in orientation shows that ICT is no longer seen solely as an organizational support function, but has developed into a strategic asset that plays a role in value creation and increasing the competitiveness of universities. Digital transformation in higher education institutions involves changes that are multidimensional, including technology, organizational processes, human resources, culture, and institutional strategies (Benavides et al., 2020; Sujatmika et al., 2023).

In the Indonesian context, the readiness of higher education's digital transformation is also influenced by contextual, technical, and cultural factors. This shows that the success of digitalization is not only determined by the availability of technology, but also by the readiness of the organization and the institutional environment (Sujatmika et al., 2023). Nevertheless, the

results of the synthesis show that part of the research is still dominated by managerial and technocratic approaches. The success of digital transformation is often attributed to investment in technology, infrastructure, digital competencies, and the implementation of governance frameworks. This approach is important, but it does not fully explain the political and power dimensions that influence technological decision-making in higher education organizations.

Digital transformation is basically not just a process of technology adoption, but an organizational change process that involves leadership, culture, structure, competencies, and relationships between stakeholders (Rahmadi, 2024). Therefore, the study of ICT governance needs to be expanded from the question of how technology is managed to the question of why technology policies and governance succeed or fail in a particular institutional context. Thus, there is a *research gap* in the literature, namely there is still limited research that simultaneously integrates ICT policy, institutional politics, ICT governance, digital transformation, and entrepreneurial universities in one conceptual framework.

The results of the study show that the digital transformation of higher education is greatly influenced by policy dynamics at the national and institutional levels. Digital policy functions as an instrument that provides direction, priority, legitimacy, and control mechanisms for the technological transformation process in higher education organizations (Latifah et al., 2023). Digital transformation policies in higher education are not only related to technology procurement, but also include the development of information systems, data management, improving digital competencies, strengthening infrastructure, changing work processes, and forming an organizational culture that is adaptive to technology (Latifah et al., 2023; Sujatmika et al., 2023).

In the Indonesian context, the digital transformation of higher education faces various problems, including infrastructure gaps, human resource competencies, organizational readiness, and policy support. This condition shows that national policies do not automatically result in institutional transformation because each university has different organizational capacities and resources (Kambau, 2024). These differences in capacity result in what can be called an implementation gap, which is a gap between policy objectives and implementation reality. Universities that have better infrastructure, human resources, leadership, and organizational culture tend to have higher adaptability than institutions that still face limited resources (Sujatmika et al., 2023). Thus, the digital transformation of higher education cannot be understood only as a process of policy implementation, but as a process of institutional adaptation. National policies need to be translated into institutional strategies that take into account the characteristics, capacities, needs, and environment of each university (Latifah et al., 2023). From the perspective of an entrepreneurial university, digital policy has an even broader function. Policies must be able to create an environment that supports innovation,

entrepreneurship, knowledge transfer, collaboration with industry, and the creation of economic and social value (Sakapurnama et al., 2019).

One of the important findings in this study is that ICT governance is essentially part of the institutional political process. Decisions regarding technology investment, information system selection, data management, and digitalization priorities are not only determined by technical considerations, but are also influenced by interests, authority, resource distribution, and power relations within the organization. In higher education, actors involved in ICT governance include university leaders, faculties, study programs, information technology units, lecturers, education staff, students, the government, and industry partners. Each actor has different needs and interests so that the digital transformation process can become an arena for institutional negotiation and decision-making.

In this context, digital leadership is an important factor. Digital leadership is not only related to the ability of leaders to understand technology, but also the ability to build vision, coordinate resources, manage change, and build a digital culture in organizations (Akbari, 2022).

Research on digital leadership in universities shows that leadership has an important role in driving transformation and improving the quality of academic services. Leadership that is able to integrate technology with organizational strategies can improve the effectiveness, accessibility, and quality of college services (Adriantoni et al., 2024). On the contrary, weak leadership can lead to policy fragmentation, organizational resistance, and low coordination between units. This resistance is not always caused by technological limitations, but can arise because digital transformation is perceived to change established work patterns, authority, and power structures. Therefore, technology cannot be seen as a completely neutral instrument. ICT governance is a social and political process that involves the relationship of power, interests, legitimacy, and distribution of resources. This perspective is important because the success of digital transformation is highly determined by the ability of universities to manage the interests of various actors constructively (Rahmadi, 2024). Thus, institutional politics does not always have to be interpreted as a conflict. Politics can be a mechanism for negotiation, alignment of interests, and the formation of policy legitimacy if managed through participatory

The results of the synthesis show that ICT governance has a strategic position as an enabler in the transformation towards an entrepreneurial university. ICT is not the end goal, but it is the infrastructure that allows universities to develop innovation, collaboration, knowledge transfer, entrepreneurship, and value creation.

The concept of an entrepreneurial university places universities not only as educational and research institutions, but also as organizations that are able to generate innovation,

transfer knowledge, build networks with the business world, and generate economic and social value (Sakapurnama et al., 2019).

In this context, digital technology can strengthen various functions of entrepreneurial universities. ICT allows universities to expand collaborative networks, accelerate knowledge exchange, develop business incubators, support campus-based start-ups, manage intellectual property, and build relationships with industry. Research on the transformation of universities into entrepreneurial universities shows that educational technology can be an important instrument in supporting this transformation. However, its success requires the support of strategic planning, transformational leadership, digital infrastructure, and a culture of innovation (Wijayanto Aripradono et al., 2024).

Thus, the relationship between ICT governance and entrepreneurial universities is not an automatic relationship. Technology only provides capacity and opportunity, while the ability to turn those opportunities into innovation is determined by policies, leadership, organizational culture, human resources, and collaboration ecosystems.

This explains why large technology investments do not always result in entrepreneurial universities. Universities can have sophisticated digital infrastructure but remain bureaucratically oriented if they are not followed by changes in organizational culture, incentive systems, authority structures, leadership, and collaboration patterns (Sakapurnama et al., 2019; Wijayanto Aripradono et al., 2024).

The results of the study show that the digital transformation of higher education must be understood as a multidimensional organizational change. Transformation does not stop at document digitization, the use of information systems, online learning, or service automation, but includes changes in work processes, organizational structures, human competencies, culture, and institutional strategies (Benavides et al., 2020; Rahmadi, 2024).

There are at least five dimensions of digital transformation that can be identified in the literature synthesis, namely:

1. Technology dimensions, including infrastructure, digital platforms, information systems, data, and artificial intelligence;
2. Organizational dimensions, including process restructuring, coordination, and division of authority;
3. The human dimension, including competence, digital literacy, and human resource readiness;
4. The cultural dimension, including openness to change, creativity, and innovation; and
5. The strategic dimension, namely the alignment of technology with the vision, mission, and goals of the university.

Digital transformation that only emphasizes the technological dimension has the potential to result in administrative digitalization without fundamental changes in the way organizations work. Conversely, transformations that integrate technology with organizational and cultural changes can result in increased innovation capacity and institutional competitiveness (Sujatmika et al., 2023).

In the context of an entrepreneurial university, the strategic dimension is very important because technology must be directed to support value creation. Therefore, the success of transformation is not measured only by the number of digital systems owned, but by its contribution to academic quality, innovation, collaboration, efficiency, and value creation for society.

Based on the synthesis of 73 articles, the relationship between variables can be understood as an interrelated institutional process. Policy provides direction and legitimacy, institutional politics determines the negotiation and decision-making process, ICT governance translates policies into organizational mechanisms, while digital transformation becomes a process of change that ultimately supports the formation of entrepreneurial university characteristics.

The relationship can be formulated as follows:

Higher Education Policy → Institutional Politics → ICT Governance → Digital Transformation → Entrepreneurial University

However, these relationships are not linear. Digital leadership, organizational capacity, HR competence, innovation culture, infrastructure, and stakeholder engagement can strengthen these relationships, while organizational resistance, fragmentation of authority, limited resources, and digital divide can weaken it (Akbari, 2022; Sujatmika et al., 2023). Thus, ICT governance can be positioned as a linking mechanism between policy and institutional transformation. Policies without effective governance will find it difficult to bring about change, while ICT governance without clear policy direction has the potential to result in fragmented digitalization.

Based on the results of the literature synthesis, the conceptual model of this research can be refined into:

Digital Policy → Institutional Political Dynamics → Digital Leadership →Strategic ICT Governance → Organizational Digital Transformation → Innovation and Entrepreneurship Ecosystem → Entrepreneurial University → Academic, Economic, Social, and Public Value Creation.

The model shows that the transformation of entrepreneurial universities is not a direct result of the use of technology. Transformation occurs through institutional mechanisms that link policy, leadership, organizational politics, ICT governance, and innovation culture.

In this model, digital leadership, human resource capacity, organizational culture, infrastructure, and stakeholder engagement function as reinforcing factors, while organizational resistance, fragmentation of authority, limited resources, and policy misalignment are the inhibiting factors. Thus, the conceptual contribution of this research lies in the placement of ICT governance as a strategic enabler, not just as an administrative or technical function. The position expands the understanding of entrepreneurial universities by incorporating the technology and digital governance dimensions into the institutional transformation process.

Theoretically, this study expands the study of ICT governance by integrating policy perspectives and institutional politics into the study of the digital transformation of higher education. So far, ICT governance has been discussed a lot from the perspective of efficiency, strategic alignment, security, and risk control. The results of the synthesis show the importance of including the dimensions of power, interests, legitimacy, leadership, and organizational culture (Rahmadi, 2024). Practically, universities need to change the paradigm from IT support to strategic ICT governance. The ICT unit not only functions as a technology service provider, but also becomes a strategic partner of the leadership in building institutional transformation. The implication is that universities need to strengthen ICT policies that are integrated with strategic plans, improve digital leadership, develop data governance, improve human resource digital competence, build a culture of innovation, and strengthen relationships with industry and society (Adriantoni et al., 2024; Wijayanto Aripradono et al., 2024).

Conclusion

Based on the results *of the Systematic Literature Review* of 73 articles for the 2015–2025 period, it can be concluded that ICT governance has shifted from a technical function to a strategic instrument for the transformation of higher education. The success of digital transformation is not only determined by technology, but also by policies, leadership, organizational culture, human resources, and institutional political dynamics.

ICT governance plays a role as a strategic enabler in building an entrepreneurial university through strengthening innovation, collaboration, knowledge transfer, and academic entrepreneurship. The conceptual model of the research shows the relationship between Digital Policy, Institutional Politics, ICT Governance, Digital Transformation and *Entrepreneurial University*.

Thus, the transformation towards *an entrepreneurial university* is a process of institutional change that is technological, strategic, cultural, and political, not just the digitization of university services.

Bibliography

Aripradono, H. W. (2024). Educational Technology for Digital Transformation of Higher Education Institutions into Entrepreneurial Universities. *Policy & Governance Review*, 8(3), 303–322.

Adriantoni, A., Vesuden, M., & Herawan, E. (2024). *The Influence of Digital Leadership in Higher Education in Improving Academic Services*. Al-Tanzim: Jurnal Manajemen Pendidikan Islam, 8(4), 1208–1222. DOI: http://doi.org/10.33650/al-tanzim.v8i4.9413

Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3(2), 77–101.

Clark, B. R. (1998). *Creating Entrepreneurial Universities: Organizational Pathways of Transformation*. Oxford: Pergamon Press.

Etzkowitz, H. (2017). *The Triple Helix: University–Industry–Government Innovation and Entrepreneurship*. New York: Routledge.

Etzkowitz, H., & Leydesdorff, L. (2000). The Dynamics of Innovation: From National Systems and “Mode 2” to a Triple Helix of University–Industry–Government Relations. *Research Policy*, 29(2), 109–123.

Fattah, A., dkk. (2019). Efektivitas Mekanisme Tata Kelola Teknologi Informasi pada Perguruan Tinggi. *Jurnal Teknologi Informasi dan Pendidikan*.

Hanley, M. (2025). *The Impact of Digital Transformation on Higher Education Institutions: Drivers, Readiness, and Outcomes*. Dublin: Maynooth University.

Johan, M. C., Langi, A. Z. R., Mahayana, D., & Abbas, M. F. (2025). Analisis Filsafat Ilmu Pengetahuan dalam Transformasi Digital Tridharma Perguruan Tinggi Menuju Smart Campus. Jurnal Filsafat Indonesia, 8(3), 521–528. DOI: 10.23887/jfi.v8i3.96905

Kadir, A. (2013). Tata Kelola Perguruan Tinggi di Era Teknologi Informasi. *Shautut Tarbiyah*, 19(1), 66–83.

Andi Kambau, R. (2024). Proses Transformasi Digital Pada Perguruan Tinggi Di Indonesia. Jurnal Rekayasa Sistem Informasi Dan Teknologi, 1(3), 126–136. https://doi.org/10.59407/jrsit.v1i3.481

Kitchenham, B., & Charters, S. (2007). *Guidelines for Performing Systematic Literature Reviews in Software Engineering*. Keele University and Durham University Joint Report.

March, J. G., & Olsen, J. P. (1989). *Rediscovering Institutions: The Organizational Basis of Politics*. New York: Free Press.

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., et al. (2021). The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews. *BMJ*, 372, n71.

Pratiwindya, P. (2022). Penilaian Tata Kelola Teknologi Informasi pada Perguruan Tinggi Menggunakan Kerangka COBIT. *STRING (Satuan Tulisan Riset dan Inovasi Teknologi)*, 7(2), 153–164.

Sakapurnama, E., Huseini, M., & Soeling, P. D. (2019). The Challenges in Higher Education Institutions in Indonesia: Are We Entrepreneurial University Yet? Hasanuddin Economics and Business Review, 2(3), 153–171. DOI: 10.26487/hebr.v2i3.1680.

Sakapurnama, E., Huseini, M., & Soeling, P. D. (2019). Building Entrepreneurial University: Case from HEI's in Indonesia. Universal Journal of Educational Research, 7(12), 2747–2754. DOI: 10.13189/ujer.2019.071224.

Snyder, H. (2019). Literature Review as a Research Methodology: An Overview and Guidelines. *Journal of Business Research*, 104, 333–339.

Suti, M., & Syahdi, M. Z. (2020). Tata Kelola Perguruan Tinggi dalam Era Teknologi Informasi dan Digitalisasi. *JEMMA (Journal of Economic, Management and Accounting)*, 3(2), 203–214.

Sujatmika, S., Ladiqi, S., Prasetio, J. E., & Susanto, A. A. (2023). *Higher Education Digital Transformation Readiness: A Systematic Literature Review*. International Journal of Academic Research in Business and Social Sciences.

Vial, G. (2019). Understanding Digital Transformation: A Review and a Research Agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144.

Wijayanto Aripradono, H., Nursyamsi, I., Wahab, A., & Sultan, Z. (2024). *Educational Technology for Digital Transformation of Higher Education Institutions into Entrepreneurial Universities*. Policy & Governance Review, 8(3), 303–322. DOI: 10.30589/pgr.v8i3.1019.

Yunis, R. (2014). Identifikasi Awal Komponen IT Governance pada Perguruan Tinggi. *Seminar Nasional Informatika*, Yogyakarta.