



RESEARCH ARTICLE

# The Impact of Digital Capability and Business Synergy on Digital Transformation

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## Abstract

This study examines the influence of digital capabilities and business synergy on digital transformation in higher education institutions facing rapid technological change. Universities are increasingly expected to adapt by strengthening their ability to use digital technologies while maintaining effective coordination across organizational units. Digital capabilities reflect the skills, knowledge, and readiness of institutions in utilizing technology, while business synergy refers to the alignment and collaboration among internal functions to support common goals. A total of ninety respondents from several universities were selected through purposive sampling, ensuring their relevance to digital practices and institutional development. The data were processed using Smart Partial Least Squares (Smart PLS) to evaluate the structural model and test the relationships between variables. The findings show that digital capabilities have a positive and significant effect on digital transformation. Business synergy also demonstrates a significant influence, indicating that coordinated efforts across departments support smoother implementation of digital initiatives. These results indicate that university performance in the digital era depends on the ability to strengthen technological competence and maintain strong internal collaboration. Institutions that are able to integrate both aspects tend to achieve more effective and sustainable transformation outcomes.

## Keywords

Digital Capabilities; Business Synergy; Digital Transformation; University.

## 1 | INTRODUCTION

In an era of rapid digital transformation, higher education institutions are required to develop a strong digital orientation, referring to strategic direction and institutional readiness to integrate digital technologies into all operational and academic activities. Digital orientation involves not only the adoption of technology but also a proactive stance in building digital competencies, supporting infrastructure, and an organizational culture that encourages innovation. Chounta *et al.* (2024) indicate that the use of digital technology has become a key factor in improving students' academic performance. In addition, the shift toward more integrated and digital-based systems has improved effectiveness across various dimensions in higher education, including teaching, administration, finance, curriculum, human resources, and information management. These developments support the view that digital transformation directly enhances institutional efficiency and service effectiveness (Ramadania *et al.*, 2024).

Digital transformation refers to the integration of digital technologies into all aspects of an organization to create value, improve efficiency, and respond to changing societal and technological demands. It emphasizes the strategic role of emerging technologies and supports successful digital innovation. Through this process, organizations combine various digital technologies to achieve superior performance and sustainable competitive advantage. This transformation affects multiple dimensions, including business models, customer experience, and operational processes, while also influencing people and networks (Seres *et al.*, 2018). The process involves not only technological adoption but also changes in strategy, structure, and organizational culture. In universities, digital transformation includes the integration of technology to improve teaching and learning processes as well as administrative efficiency (Bond *et al.*, 2018). As a result, digital transformation in higher education involves structural, cultural, and strategic adjustments to improve educational quality, management efficiency, and institutional competitiveness.

Digital capabilities represent another important factor influencing university performance. Although widely discussed in business and management literature, the concept also applies to higher education. University performance can be assessed through various indicators, such as student achievement, teaching effectiveness, research productivity, learning innovation, managerial efficiency, institutional reputation, and global rankings (Kastelli *et al.*, 2024). The increasing use of digital technologies, including online learning systems, collaborative platforms, learning analytics, and digital administrative services, requires strong digital capabilities. Universities with higher levels of digital capability are more likely to achieve better performance outcomes. However, several challenges remain, including technological infrastructure, human resource readiness, integration of digital strategies into organizational processes, and the development of supportive governance structures and culture. Therefore, universities need to develop integrated digital capabilities that cover strategy, human resources, business processes, and organizational culture (Almahdi & Al-Manzua, 2025).

In the face of globalization and rapid technological disruption, universities are expected to evolve into adaptive, innovative, and collaborative institutions. One important approach involves business synergy, which refers to strategic collaboration between universities and external stakeholders such as industry, government, and the broader business sector. Such collaboration enables knowledge exchange, resource sharing, and value creation, strengthening long-term sustainability and competitiveness. Research by Sitiari *et al.* (2024) shows that business strategy plays a mediating role in the relationship between knowledge management and competitive advantage in universities, indicating that business-oriented management practices can be effectively applied in higher education governance.

This study aims to analyze the impact of digital capabilities and business synergy on digital transformation. It focuses on examining how business synergy supports digital transformation and how digital capabilities strengthen transformation processes, research productivity, and institutional management. Previous studies, such as Prans *et al.* (2025), have demonstrated a significant positive relationship between digital capabilities and digital transformation. The results are expected to provide empirical evidence on these relationships and offer strategic recommendations for university administrators to improve performance through effective digital transformation.

## 2 | BACKGROUND THEORY

### 2.1 Digital Capabilities and Digital Transformation

Since technological advancement has reshaped global activities, significant changes have occurred, particularly in developed countries (Ekasari *et al.*, 2021). Digital capabilities play a crucial role in influencing digital transformation. Digital transformation acts as a mechanism that converts digital capabilities into tangible outcomes, such as improved efficiency and enhanced quality of academic services. The successful implementation of digital technology in higher education largely depends on the maturity of digital capabilities and the ability of organizational culture to adapt to change. Universities that are able to integrate technologies such as Learning Management Systems (LMS), cloud computing, and data analytics tend to achieve higher administrative efficiency and improved teaching quality. Effective digital

transformation enables institutions to respond more quickly to student needs and to adapt to global changes in education systems (Fernández *et al.*, 2023). Collaboration with industry also provides access to technology transfer, human resource development, and joint digital innovation (Evans *et al.*, 2023). Continuous investment in digital capability development increases the likelihood of achieving strong digital transformation and global competitiveness (Sun & Yoon, 2025).

H1: Digital transformation is influenced by digital capabilities.

## 2.2 Business Synergy and Digital Transformation

Management models that do not only emphasize operational efficiency but also respond to evolving needs, utilize advanced technologies, and consider stakeholder interests are better prepared to face challenges and opportunities in the digital era (Ekasari *et al.*, 2024). Business synergy between universities and industry plays an important role in improving higher education performance. Strong collaboration with industry supports the development of applied research, enhances learning quality, and encourages academic entrepreneurship. The use of digital technologies also reshapes the implementation of the three pillars of higher education—teaching, research, and community service—making them more effective, efficient, and measurable (Tereshchenko *et al.*, 2024). Digital transformation includes the adoption of online learning platforms, digital administrative systems, and integrated data analytics, all of which strengthen institutional responsiveness and adaptability. Business synergy, both internally across organizational units and externally with industry partners, contributes to strengthening digital capabilities, including information technology infrastructure, data management capacity, and staff digital competencies (Sun & Yoon, 2025).

H2: Digital transformation is influenced by business synergy.

Based on the background, research objectives, problem formulation, and hypothesis development, the proposed research model is presented as follows.

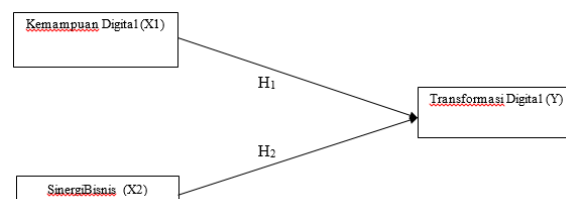


Figure 1. Research Model

## 3 | METHOD

This study employs a quantitative approach using regression analysis to examine the relationships and effects among the variables. The research relies on primary data collected from university students across all academic levels. A total of 90 respondents were involved, selected through purposive sampling to ensure relevance to the research objectives. Digital Transformation (Y) is treated as the dependent variable, measured through several dimensions: (1) Infrastructure and Technology, (2) Teaching and Curriculum Innovation, (3) Leadership, Strategy, and Administration, (4) Student Support and Service Digitalization, and (5) Performance Outcomes and Efficiency. The independent variables include: (a) Digital Capabilities (X1), which consist of (1) Digital Infrastructure and Technology, (2) User Digital Competence, (3) Digital Leadership and Strategy, (4) Digital Culture and Organization, and (5) Data Management and Analytics (Putri *et al.*, 2023); and (b) Business Synergy (X2), which includes (1) External Collaboration, (2) Internal Strategic Alignment, (3) Synergistic Resource Utilization, and (4) Joint Innovation and Value Creation (Bertoletti & Johnes, 2021; Leydesdorff *et al.*, 2014). The analysis is conducted using the Partial Least Squares (PLS) method, supported by SmartPLS software version 3.29.

## 4 | RESULTS AND DISCUSSION

### 4.1 Results

#### 4.1.1 Validity Test (Convergent Validity)

Validity testing is conducted to assess the extent to which each indicator accurately measures its corresponding latent variable. This evaluation focuses on convergent validity, which is determined by examining the loading factor values of each indicator in the measurement model. Convergent validity indicates that multiple indicators designed to measure the same construct share a high proportion of variance. In this context, an indicator is considered valid when it demonstrates a strong correlation with its latent variable. A commonly accepted threshold for loading factor values is greater than 0.70

(> 0.70), indicating that the indicator reliably represents the intended construct. Values slightly below this threshold may still be acceptable in exploratory research, provided that the overall model remains robust and theoretically supported.

Table 1. Results of Outer Loadings

Variable	Indicator	Outer Loadings	Description
Business Synergy (X1)	SB.1	0.904	Valid
	SB.2	0.857	Valid
	SB.3	0.753	Valid
	SB.4	0.787	Valid
	SB.5	0.864	Valid
Digital Capabilities (X2)	KD.1	0.939	Valid
	KD.2	0.747	Valid
	KD.3	0.858	Valid
	KD.4	0.913	Valid
	KD.5	0.911	Valid
Digital Transformation (Y)	DT.1	0.933	Valid
	DT.2	0.743	Valid
	DT.3	0.936	Valid
	DT.4	0.848	Valid
	DT.5	0.884	Valid

Source: Data processed using SmartPLS 3

Based on the analysis presented in Table 1, all outer loading values for each variable and its indicators exceed 0.70, indicating that all measurement items meet the required threshold for convergent validity. This result confirms that each indicator reliably represents its respective construct and can be retained for further analysis. Following this assessment, the next step involves evaluating the Average Variance Extracted (AVE) to further examine the validity of the constructs, as presented in Table 2 below.

Table 2. AVE Results

Variable	Average Variance Extracted (AVE)	Description
Digital Capabilities (X1)	0.768	Valid
Business Synergy (X2)	0.697	Valid
Digital Transformation (Y)	0.760	Valid

Source: Data processed using SmartPLS 3

Table 2 shows that all Average Variance Extracted (AVE) values exceed the threshold of 0.50, indicating that the constructs meet the requirements for convergent validity. These results confirm that the indicators sufficiently explain the variance of their respective variables. Therefore, the measurement model demonstrates good validity and can be considered reliable for further analysis and hypothesis testing within the study.

#### 4.1.2 Composite Reliability and Cronbach's Alpha Test

The next step involves reliability testing using composite reliability and Cronbach's alpha to assess the internal consistency of the measurement model. These tests evaluate whether the indicators for each variable produce stable and consistent results. A construct is considered reliable when both composite reliability and Cronbach's alpha values exceed the recommended threshold of 0.70. Higher values indicate stronger consistency among the indicators in measuring the same latent variable. This assessment ensures that the measurement instruments used are dependable and suitable for further analysis, supporting the accuracy of the research findings and the overall robustness of the model.

Table 3. Composite Reliability and Cronbach's Alpha Results

Variable	Cronbach's Alpha	Composite Reliability	Description
Digital Capabilities (X1)	0.891	0.920	Reliable
Business Synergy (X2)	0.923	0.943	Reliable
Digital Transformation (Y)	0.920	0.940	Reliable

Source: Data processed using SmartPLS 3

Based on the analysis presented in Table 3, both composite reliability and Cronbach's alpha values for all variables exceed the threshold of 0.70. These results indicate strong internal consistency among the indicators used to measure each

construct. Therefore, all variables in the model can be considered reliable and suitable for further statistical analysis and hypothesis testing within the study.

#### 4.1.3 Coefficient Test

The coefficient test is conducted to determine the significance level of the relationships between variables in hypothesis testing using a two-tailed model. This test evaluates the strength and direction of the influence among constructs in the structural model. The results of the data analysis are interpreted by examining the t-statistics and p-values obtained from the estimation process. A hypothesis is accepted when the t-statistic exceeds the critical value from the t-table, indicating a significant effect. In addition, a p-value below 0.05 confirms statistical significance, showing that the relationship between variables is meaningful and not due to random variation.

Table 4. Results of the Coefficient Test

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P-Values
X1 → Y	.214	.215	.111	1.671	.006
X2 → Y	.015	.013	.134	1.710	.013

Source: Data processed using SmartPLS 3

Based on the figure and Table 4, the effect of Digital Capabilities (X1) on Digital Transformation (Y) shows a t-statistic value of 1.671, which is greater than 1.65, and a p-value of 0.006, which is below 0.05. These results indicate a statistically significant relationship. Therefore, Digital Capabilities have a significant effect on Digital Transformation, and H1 is accepted. The direct effect of Business Synergy (X2) on Digital Transformation (Y) shows a t-statistic value of 1.710, which exceeds the threshold value of 1.65, and a p-value of 0.013, which is below 0.05. These findings confirm a significant relationship. Therefore, Business Synergy has a significant effect on Digital Transformation, and H2 is accepted.

#### 4.1.4 R-Square Test (R<sup>2</sup>)

The R-square (R<sup>2</sup>) test is used to evaluate the extent to which independent variables explain the variation in the dependent variable within the model. This measure reflects the proportion of variance in the endogenous construct that can be accounted for by the exogenous variables. A higher R<sup>2</sup> value indicates a stronger explanatory power, meaning the independent variables provide a better prediction of the dependent variable. Conversely, a lower value suggests limited explanatory capability. R<sup>2</sup> also helps assess the overall quality of the structural model, indicating how well the proposed relationships between variables are supported by the data obtained in the study.

Table 5. R-Square Results

Variable	R-Square (R <sup>2</sup> )	Adjusted R-Square
Digital Transformation (Y)	0.810	0.801

Source: Data processed using SmartPLS 3

The R-Square test results in Table 5 show that the R<sup>2</sup> value for the Digital Transformation variable (Y) is 0.810. This indicates that Digital Transformation (Y) is explained by Digital Capabilities (X1) and Business Synergy (X2) by 81%. The remaining 19% is influenced by other factors not included in this study. These results reflect a strong explanatory power and demonstrate a significant impact of the independent variables on digital transformation.

## 4.2 Discussion

Based on the analysis results, digital transformation is influenced by digital capabilities. Institutional performance is significantly affected by digital capabilities. Digital transformation converts digital capabilities into observable outcomes such as increased productivity, improved academic service quality, and enhanced institutional performance. The maturity of digital capabilities and the organization's ability to adapt its culture to change are key factors in the successful adoption of digital technologies in higher education. Zhang *et al.* (2025) state that digital transformation capability has a positive effect on digital transformation. The findings indicate that strong digital transformation capability can improve institutional performance. In addition, digital transformation can enhance innovation performance through the reconstruction of dynamic capabilities.

Based on the test results, business synergy is able to influence digital transformation in universities. Several studies show that although business synergy between higher education institutions and external partners has the potential to improve performance, digital transformation plays an effective role in this relationship. This suggests that when synergy or external support exists, digital transformation is significantly affected (Ketut *et al.*, 2024). As a result, digital transformation consistently functions as an effective channel. In the university context, strong business synergy such as industry partnerships, research alliances, or collaborations may exist. However, when digital transformation is

implemented with adequate readiness such as sufficient technology integration, a strong digital culture, and developed infrastructure its effectiveness in reflecting business synergy becomes more pronounced.

## 5 | CONCLUSIONS AND FUTURE WORK

Based on the analysis results, it can be concluded that digital capabilities and business synergy have a significant effect on digital transformation in universities. These findings indicate that the ability of universities to build business synergy, as well as to develop and implement digital capabilities, plays an important role in strengthening digital transformation in higher education. Overall, the results emphasize that the success of digital transformation in universities in the digital era largely depends on the institution's ability to integrate digital capabilities into a concrete transformation strategy, rather than relying solely on digital orientation. The limitations of this study include the use of data from a limited number of universities, which may restrict the generalizability of the findings to all higher education institutions. In addition, this study applies a cross-sectional quantitative approach, which cannot capture changes in variables over time. Finally, the measurement of variables is based on respondents' perceptions, which may introduce subjective bias.

## REFERENCES

- Alasiri, N., & AlKubaisy, Z. (2022). Exploring the role of leadership, work environment, IT alignment, and company performance on digital transformation: A study on private sector companies in Western Region, Saudi Arabia. *International Journal of Professional Business Review*, 7(2), 5. <https://doi.org/10.26668/businessreview/2022.v7i2.500>
- Al-Jubouri, Z. T. K. (2023). The role of transformational leadership for human resource managers in training and development. *International Journal of Professional Business Review*, 8(4), 1-19. <https://doi.org/10.26668/businessreview/2023.v8i4.1376>
- Almahdi, A. A. M., & Al-Manzuoa, Z. A. A. (2025). The role of digital transformation in enhancing educational service quality in Yemeni private universities. *TPM-Testing, Psychometrics, Methodology in Applied Psychology*, 32(S2), 375-387. <https://tpmap.org/submission/index.php/tpm/article/view/253>
- Alomari, J. F. (2024). Applying digital transformation techniques in developing the administrative and educational process in Jordanian universities. *Journal of Educational and Social Research*, 14(5), 167-177. <https://doi.org/10.36941/jesr-2024-0129>
- Anne, J., Joseph, K., Ishaq, C., Naabi, A., & To, L. (2025). Enhancing digital productivity and capability in higher education through authentic leader behaviors: A cross-cultural structural equation model. *Education and Information Technologies*, 30(12), 17751-17767. <https://doi.org/10.1007/s10639-025-13422-x>
- Astuty, E., Yustian, O. R., & Ratnapuri, C. I. (2022). Building student entrepreneurship activities through the synergy of the university entrepreneurship ecosystem. *Frontiers in Education*, 7, 1-19. <https://doi.org/10.3389/feduc.2022.757012>
- Bertoletti, A., & Johnes, G. (2021). Efficiency in university-industry collaboration: An analysis of UK higher education institutions. *Scientometrics*, 126(9). <https://doi.org/10.1007/s11192-021-04076-w>
- Bond, M., Marín, V. I., Dolch, C., Bedenlier, S., & Zawacki-Richter, O. (2018). Digital transformation in German higher education. *International Journal of Educational Technology in Higher Education*, 15(1), 1-20. <https://doi.org/10.1186/s41239-018-0130-1>
- Brahmana, R. K., & Kontesa, M. (2024). Does digital orientation enhance firm performance? *Sage Journals*, 1-10. <https://doi.org/10.1177/09722629241257300>
- Chounta, I. A., Ortega-Arranz, A., Daskalaki, S., Dimitriadis, Y., & Avouris, N. (2024). Toward a data-informed framework for digital readiness in higher education. *International Journal of Educational Technology in Higher Education*, 21(1),

1–28. <https://doi.org/10.1186/s41239-024-00491-0>

- Čirjevskis, A. (2021). Exploring critical success factors of reciprocal synergy in strategic alliances. *WMSCI 2021 Proceedings*, 14(385), 137–142. <https://doi.org/10.3390/jrfm14080385>
- Dhameria, V., Muazeib, A. I. M., Blhaj, K. M. S., Sugiyarsih, S., & Rosadah, R. A. (2025). The impact of digital transformation in higher education management. *International Journal of Educational Qualitative Quantitative Research*, 4(1), 15–24. <https://doi.org/10.58418/ijeqr.v4i1.135>
- Ding, T., Yang, J., Wu, H., Wen, Y., Tan, C., & Liang, L. (2021). Research performance evaluation of Chinese university. *Journal of Management Science and Engineering*, 6(4), 467–481. <https://doi.org/10.1016/j.jmse.2020.10.003>
- Ekasari, S., Abdurakhman, R. N., Nuryanto, U. W., Hartanto, & Wulandari. (2024). Analysis of information management and innovation behavior. *Jurnal Sistem Informasi dan Teknologi*, 6(2), 111–115.
- Ekasari, S., Manullang, S. O., Syakhrani, A. W., & Amin, H. (2021). Understanding Islamic education management in digital era. *Nidhomul Haq*, 6(1), 127–143.
- Evans, N., Miklosik, A., & Du, J. T. (2023). University-industry collaboration as a driver of digital transformation. *Heliyon*, 9, 1–12. <https://doi.org/10.1016/j.heliyon.2023.e21017>
- Fan, Z., & Chiong, R. (2023). Identifying digital capabilities in university courses. *Education and Information Technologies*, 28, 3937–3952. <https://doi.org/10.1007/s10639-022-11075-8>
- Fernández, A., Gómez, B., Binjaku, K., & Meçe, E. K. (2023). Digital transformation initiatives in higher education institutions. *Education and Information Technologies*, 28(10). <https://doi.org/10.1007/s10639-022-11544-0>
- Holubčík, M., Soviar, J., & Lendel, V. (2023). Through synergy in cooperation toward sustainable business strategy management. *Sustainability*, 15(1), 1–30. <https://doi.org/10.3390/su15010525>
- Kastelli, I., Dimas, P., Stamopoulos, D., & Tsakanikas, A. (2024). Linking digital capacity to innovation performance. *Journal of the Knowledge Economy*, 15(1), 238–272. <https://doi.org/10.1007/s13132-022-01092-w>
- Keskes, I., Sallan, J. M., Simo, P., & Fernandez, V. (2018). Transformational leadership and organizational commitment. *Journal of Management Development*, 37(3), 271–284. <https://doi.org/10.1108/JMD-04-2017-0132>
- Ketut, M. I., Nyoman, U. I. D., & Wayan, S. N. (2024). The importance of MSMEs competitiveness through digital transformation. *Journal of Accounting and Strategic Finance*, 7(1), 18–38. <https://doi.org/10.33005/jasf.v7i1.467>
- Kindermann, B., Beutel, S., & others. (2021). Digital orientation: Conceptualization and operationalization. *European Management Journal*, 39(5), 645–657. <https://doi.org/10.1016/j.emj.2020.10.009>
- Kindermann, B., Schmidt, C. V. H., Fengel, F., & Strese, S. (2024). Expanding digital orientation research. *Journal of Business Research*, 185, 1–15. <https://doi.org/10.1016/j.jbusres.2024.114895>
- Leydesdorff, L., Park, H. W., & Lengyel, B. (2014). Measuring synergy in university-industry-government relations. *Scientometrics*, 99(1), 27–35. <https://doi.org/10.1007/S11192-013-1079-4>
- Lianto, B., Iswadi, H., & Oktavianti, N. D. (2025). University-industry collaboration and innovation performance. *Asian Journal of Technology Management*, 18(1), 1–19. <https://doi.org/10.12695/ajtm.2025.18.1.1>
- Multan, E., W., Sobotka, B., & Bis, J. (2023). Application of performance indicators in universities. *Sustainability*, 15(13673), 1–21. <https://doi.org/10.3390/su151813673>
- Prans, M., Renta, P., & Ali, S. (2025). Digital transformation and higher education performance. *International Journal of Applied Research*, 28(1), 149–180. <https://doi.org/10.33312/ijar.831>
- Purwanto, H., Rahayu, A., Gaffar, V., et al. (2024). Strategic alignment for digital transformation in higher education. *Trikonomika*, 23(2), 83–97. <https://doi.org/10.23969/trikononika.v23i2.18940>

- Putri, N. K. S., Permatasari, D., Susanto, R., Lee, C. K., & Kurniawan, Y. (2023). Knowledge management evaluation using digital capability model. *Electronic Journal of Knowledge Management*, 21(2), 140–157. <https://doi.org/10.34190/ejkm.21.2.3009>
- Ramadania, R., Hartijasti, Y., Purmono, B. B., *et al.* (2024). Digital transformation and organizational performance in higher education. *International Journal of Sustainable Development and Planning*, 19(4), 1239–1252. <https://doi.org/10.18280/ijstdp.190402>
- Salwa, R. R., MS, M., & Nabila, N. I. (2025). Digital orientation and digital capability on digital transformation. *Jurnal Ekonomika dan Bisnis*, 5(3), 534–539. <https://doi.org/10.47233/jeps.v5i3.2756>
- Sani, A., & Almahendra, R. (2025). Digital strategy and higher education transformation. *CIRSSEM*, 3(1), 33–50.
- Sitiari, N. W., Sariyani, N. K., Martadiani, A. A. M., & Sarmawa, I. W. G. (2024). Sustainable competitive advantage in higher education. *Jurnal Pendidikan Indonesia*, 13(3), 584–594. <https://doi.org/10.23887/jpiundiksha.v13i3.66053>
- Sudirman, & Ridwan. (2025). Operational synergy and financial sustainability in higher education. *Jurnal Ilmiah Multidisiplin Indonesia*, 4(06), 575–587. <https://doi.org/10.58471/esaprom.v4i06>
- Sukandi, P. (2024). Synergy between universities and leadership collaboration. Atlantis Press. [https://doi.org/10.2991/978-94-6463-608-6\\_25](https://doi.org/10.2991/978-94-6463-608-6_25)
- Sun, T., & Yoon, M. (2025). Digital transformation and faculty performance. *Frontiers in Psychology*, 16, 1–13. <https://doi.org/10.3389/fpsyg.2025.1693375>
- Tereshchenko, E., Salmela, E., Melkko, E., *et al.* (2024). University-industry cooperation strategies. *Journal of Innovation and Entrepreneurship*, 13(28), 1–45. <https://doi.org/10.1186/s13731-024-00386-4>
- Widyani, A. A. D., Suardhika, I. N., Astiti, N. P. Y., & Rustiarini, N. W. (2022). Triple helix synergy for SMEs. *Review of Applied Socio-Economic Research*, 24(2), 174–191. <https://doi.org/10.54609/reaser.v24i2.183>
- Wijayanto Aripardono, H., Nursyamsi, I., Wahab, A., & Sultan, Z. (2024). Educational technology for digital transformation. *Policy & Governance Review*, 8(2), 303–322. <https://doi.org/10.30589/pgr.v8i3.1019>
- Xie, Y., & Zhang, M. (2024). Synergy of higher education resources and digital infrastructure. *PLOS ONE*, 19(6), 1–26. <https://doi.org/10.1371/journal.pone.0304613>
- Yu, J., & Moon, T. (2021). Digital strategic orientation and performance. *ICIC Express Letters*, 12(9), 847–856. <https://doi.org/10.24507/icicelb.12.09.847>
- Zhang, X., Wang, Z., Luo, W., *et al.* (2025). Digital orientation and innovation performance. *Systems*, 13(5), 1–22. <https://doi.org/10.3390/systems13050346>
- Zhang, Y., Swatdikun, T., Lakkanawanit, P., *et al.* (2025). Digital transformation capability and performance. *Journal of Risk and Financial Management*, 18(7), 1–22. <https://doi.org/10.3390/jrfm18070405>
- Zhao, Y., Sánchez Gómez, M. C., Pinto Llorente, A. M., & Zhao, L. (2021). Digital competence in higher education. *Sustainability*, 13(21), 1–17. <https://doi.org/10.3390/su132112184>

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