



DIGITAL TRANSFORMATION AND COMPETENCES

TRANSFORMACIÓN DIGITAL Y COMPETENCIAS

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The first issue of the eighth volume of 2024 of the Cuban Journal of Public and Business Administration addresses various current topics. The issue includes original articles and a reflection article, with authors from Cuba, Mexico, Brazil and China. The articles address the management of human capital related to management competencies, performance evaluation with a competency approach in business managers, the reference framework for digital teaching competence and the academic and professional training of business managers. Other topics related to governance and digital transformation are included, such as citizen participation platforms, citizen perception of transparency and integrity in the protection of public assets, digital transformation and local development and Chinese-style modernization. Articles related to organizational culture and the efficient management of agricultural machinery are also included.

Human resource management strategies in the digital transformation of organizations are key to the success of companies in the face of changes in the digital age.¹ In the context of the digital economy, human resource management requires five factors: needs of the internal digital client, digital innovation in the industry, the challenges of competition, governance of digital innovation, and the needs of the digital age.²

In the current context, the competencies of managers in the Cuban biotechnology and pharmaceutical sector, as one of the vital processes of human capital management^{3,4} are addressed in the article “Design of a competency-based selection model for managers at the Finlay Institute.” Leadership competencies and strategic vision are key to the successful performance of their functions, a criterion validated in other studies with managers in agriculture⁵ and public health.⁶

Another process of human capital management⁷ is analyzed in the article “Excel tool for evaluating the performance of managers with a focus on labor competencies.” This article highlights the strategic alignment with competencies in 4.0 environments in management positions and workers in the business system. By focusing on improving the digital competencies of workers, cultural and leadership changes, adequate organizational restructuring, human capital management, performance measurement, effective



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communication, flexibility and good risk management, organizations can optimally leverage digital technology to achieve a competitive advantage, improve business performance and provide added value to customers.¹

The strategic nature of digital transformation, and above all its multidimensional scope, imposes the need to overcome the restrictive vision oriented to Information Technologies and consider it a strategic transformation process, for which it is required: to evaluate, define the strategy and implement it.⁸ For digital transformation, the digital competence of teachers has a relevance in the generation of capacities in society, as happened in COVID-19.⁹

Digital competence refers to the ability to effectively use information and communication technologies (ICT) in various contexts to achieve professional, educational, social, economic and institutional objectives. The article “Digital Competence for Teachers in the Ministry of Higher Education of Cuba” proposes a Reference Framework for Digital Competence for Teachers taking as a starting point the European Framework for Digital Competence for Teachers (DigCompEdu) and is supported by a cycle of continuous improvement (plan-do-check-act) based on an innovation management methodology^{10,11} that provides for the approval of legal regulations to have increasingly competent and innovative professionals, as part of the strategy for Digital Transformation in Higher Education. Integrated digital transformation models are also used to assess the level of maturity that educational institutions have in their digital transformation processes.¹²

The digitalization of education in the 21st century combines face-to-face learning with online and interactive learning methods, creating an environment in which the emphasis is no longer on the teacher but on cooperation, interaction with the student¹³ and learning by doing.¹⁴ The article “The Specialty of Business Management and Administration as a way of improving executives: results, experiences and perspectives” addresses the use of new methods in the academic training of business executives at the Higher School of State and Government Executives, such as case studies, discussion in large and small groups, interactive readings, conferences, role-playing games, simulation, oral presentations and written exercises.

The digital transformation processes of the public sector lead to the introduction of innovations and significant changes in citizen participation projects and processes.¹⁵ These processes are understood as a more cooperative and collaborative government experience, supported by the opportunities provided by new and emerging digital technologies and data.¹⁶ The article “Design of a platform for citizen participation with a business architecture approach” aims to enable a digital mechanism for community participation in decision-making, based on the design of a participatory and popular consultation platform. It constitutes a step towards the transformation to an open government, where transparency is the focus of value¹⁷ and the citizen participates more actively in government decisions, in a collaborative process of co-participation.¹⁸

Another article, entitled “Descriptive study on the perception of integrity in the management of public assets” highlights that effective mechanisms of supervision and control of the citizen with preventive measures against corruption promote a positive perception of transparency, honesty, effectiveness of laws and regulations, human rights^{19,20} and guarantee a transparent and responsible public management. Transparency is a term closely related to digital transformation and digital skills.

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The article “Digital transformation and local development: reflections on its governance” emphasizes that, for the integration of local development with digital transformation,²¹ institutionality through government agencies or organizational structures that facilitate horizontality, transversality and complementarity with interconnections^{22,23} between the actors of knowledge generation, public administration and the goods and services sector, are vital.

Digital competence is also defined as the set of knowledge, skills, attitudes, strategies and awareness required when using ICT and digital media to perform tasks, solve problems, communicate, manage information, collaborate, create and share content, and build knowledge in an effective, efficient, appropriate, critical, creative, autonomous, flexible, ethical and reflective manner, for work, leisure, participation, learning and socialization.²⁴ Performance in digital environments and the skills of change planning, intercultural communication, teamwork, creativity and innovation should be encouraged.^{5,25,26}

Skills are favored in organizational cultures that promote adaptation to the dynamic and complex changes of the current context, an issue that is addressed in the article “Management of university culture. Case study at the University of Las Tunas”. To this end, an action plan is proposed for the following variables: myths and stories of the organization, rites and ceremonies of the organization, beliefs, values, communication, heroes and outstanding figures within the organization, norms of the organization and identity.

The article “Chinese-style modernization and its global significance” addresses the leadership of the Party and the competencies of the cadres for the construction of socialism with Chinese characteristics, high-quality development²⁷ and the digital economy²⁸ based on their own national conditions²⁹ and serving the people, with close and deep interaction with the world.

The article “Managing agricultural machinery for efficient management and mitigating climate change” addresses a necessary approach for sustainable development, food security for the world's population and the use of agroecosystems.^{30,31}

Bibliographic references

1. Sondari S, Gazalin J, Sutrisno S, Budi Y, Almaududi AM. Human Resource Management Strategy in Organisational Digital Transformation. *Jurnal Minfo Polgan* 2023; June 12 (2):760-770. [consulted 1 march 2024] Available in: <https://doi.org/10.33395/jmp.v12i2.12508>
2. Zhang J, Chen Z. Exploring Human Resource Management Digital Transformation in the Digital Age. *Journal of the Knowledge Economy*. Springer, 7 march; 2023. [consulted 2 february 2024] Available in: <https://doi.org/10.1007/s13132-023-01214-y>
3. Cuesta A, Linares MA, Fleitas S, Delgado M. Gestión del Capital Humano. En: Delgado M, Coordinador académico. Temas de Gestión Empresarial. Volumen IV. La Habana: Editorial Universitaria Félix Varela. 2017; 157 p. [consulted 1 february 2024] Available in: <http://bibliografia.eduniv.cu:8083/read/17/pdf>
4. Cuesta A, Delgado M, Fleitas S, Linares MA. Optimización del capital humano por innovación en procesos de gestión humana y del conocimiento. *Anales de la Academia de Ciencias de Cuba*. 2023; 13 (1) [consulted 2 february 2024] Available in: <http://www.revistaccuba.cu/index.php/revacc/article/view/1287/1706>

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5. Delgado M, Muriel J, Polo JC, Padilla D. Perfil de competencias de los directivos en Cuba y su aplicación en la agricultura. Revista Cubana de Administración Pública y Empresarial. 2022;6(1):e194. [Consulted 2 february 2024] Available in: <https://doi.org/10.5281/zenodo.5821770>
6. Miranda YO, León Y, González E, Delgado M, Leal C. (2023). Competencias directivas genéricas: su identificación en la Dirección Provincial de Salud en Matanzas. Universidad y Sociedad, 2023;15(S1): 294-306. [consulted 6 february 2024] Available in: <https://rus.ucf.edu.cu/index.php/rus/article/view/3764>
7. Peña DdlM, Delgado M. Procedimiento para la evaluación integrada del desempeño de una universidad de posgrado. Revista Cubana de Administración Pública y Empresarial. 2020;4(1):106–121. [consulted 10 marzo 2024] Available in: <https://apye.esceg.cu/index.php/apye/article/view/105>
8. Zaoui F, Souissi N. Roadmap for digital transformation: A literature review. Procedia Computer Science 2020;175:621-628. [consulted 10 marzo 2024] Available in: <https://doi.org/10.1016/j.procs.2020.07.090>
9. Zhao Y, Pinto AM, Sánchez MC, Digital competence in higher education research: A systematic literature review. Computers & Education. 2021;168:104212. [consulted 10 march 2024] Available in: <https://doi.org/10.1016/j.compedu.2021.104212>
10. Delgado M. Innovación Empresarial. En: Delgado M, Coordinador académico. Temas de Gestión Empresarial. Vol. II. La Habana: Editorial Universitaria Félix Varela; 2017, p. 117. ISBN 978-959-07-2160-1. [Consulted 10 april 2024]. Available in: <http://bibliografia.eduniv.cu:8083/read/14/pdf>
11. Delgado M. Enfoque y métodos para la innovación en la Administración Pública y Empresarial. Revista Cubana de Administración Pública y Empresarial. 2019;3(2),141-153. [consulted 14 april 2024]. Available in: <https://apye.esceg.cu/index.php/apye/article/view/79/88>
12. Rodríguez G, Bribiesca G. Assessing Digital Transformation in Universities. Future Internet 2021; 13, 52. [Consulted 14 april 2024]. Available in: <https://doi.org/10.3390/fi13020052>
13. Bilyalova AA, Salimova DA, Zelenina TI. Digital Transformation in Education. ICIS, Springer Nature Switzerland. 2020; LNNS (78): 265–276. [consulted 21 april 2024] Available in: https://doi.org/10.1007/978-3-030-22493-6_24
14. Reisoglu I, Çebi A. How can the digital competences of pre-service teachers be developed? Examining a case study through the lens of DigComp and DigCompEdu. Computers & Education. 2020; 156: 103940. [consulted 21 april 2024] Available in: <https://doi.org/10.1016/j.compedu.2020.103940>
15. Edelmann N, Albrecht V. Designing public participation in the digital age: Lessons learned from using the policy cycle in an Austrian case study. InProceedings of the 24th Annual International Conference on Digital Government Research. 2023 Jul 11,300-308. [consulted 10 april 2024] Available in: <https://doi.org/10.1145/3598469.3598502>
16. OECD. 2020. The OECD Digital Government Policy Framework, in OECD Publishing, Paris. [consulted 10 april 2024] Available in: <https://www.oecd.org/governance/the-oecd-digital-government-policy-framework-f64fed2a-en.htm>
17. Delgado T, Sánchez A. Repensando el gobierno electrónico: ventanilla única, servicios sostenibles y gobierno digital centrado en la innovación. Revista Cubana de Administración Pública y Empresarial, 2018;2(3):254–267. [consulted 10 april 2024] Available in: <https://apye.esceg.cu/index.php/apye/article/view/55>
18. Delgado T, Rodríguez SV. Datos abiertos y gobernanza de Gobierno electrónico con énfasis en la gestión de información geográfica. Rev. Cub. Transf. Dig. [Internet]. 24 july 2020 2024];1(2):1-6. [consulted 16 april 2024] Available in: <https://rctd.uic.cu/rctd/article/view/81>

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19. Delfino E, Cuello Y, Utria J. Seguridad ciudadana: su provisión desde la gestión local como una necesidad social de la ciencia. Revista Cubana de Administración Pública y Empresarial, 2020;6(3):e198 [consulted 18 april 2024] Available in: <https://doi.org/10.5281/zenodo.7493878>
20. Romero SM, Santos EA. Análisis de la percepción ciudadana sobre el significado de “buen gobierno” en materia de derechos humanos: casos moradores de Portoviejo-Ecuador. Revista Cubana de Administración Pública y Empresarial, 2023;7(3):e180. [consulted 18 april 2024] Available in: <https://doi.org/10.5281/zenodo.11396543>
21. Jeffrey J. Pittaway, Ali Reza Montazemi, Know-how to lead digital transformation: The case of local governments, Government Information Quarterly, 2020;37(4)101474, [consulted 20 april 2024] Available in: <https://doi.org/10.1016/j.giq.2020.101474>.
22. Brunetti F, Matt D, Bonfanti A, De Longhi A. Digital transformation challenges: strategies emerging from a multi-stakeholder approach. The TQM Journal. 2020;32(4):697-724. [consulted 20 april 2024] Available in: <https://doi.org/10.1108/TQM-12-2019-0309>
23. Díaz-Canel M. Sistema de gestión del gobierno basado en ciencia e innovación para el desarrollo sostenible en Cuba. Tesis doctoral en Ciencias Técnicas. Ingeniería Industrial. Universidad Central “Marta Abreu” de las Villas. La Habana, marzo; 2021.
24. Ferrari A. Digital Competence in practice: An analysis of frameworks, EUR 25351 EN, Luxembourg (Luxembourg), Publications Office of the European Union, 2012, JRC68116. [consulted 10 april 2024] Available in: <https://doi.org/10.2791/82116>
25. Ortega Y, Delgado M, Delgado T. Competencias para la transformación digital. En: Ruiz A, Delgado T, Febles, A y Estévez, S (compiladores). Habilitando la Transformación Digital. Tomo I. ISBN 978-959-7265-44-3. La Habana: Editorial UH; 2022, pp. 39-68.
26. Ochoa M, Delgado M. Procedimiento para la formación por roles en la producción de software en la Universidad de Ciencias Informáticas. Revista Cubana de Administración Pública y Empresarial, 2018; 1(2): 120–132. [consulted 10 april 2024] Available in: <https://apye.esceg.cu/index.php/apye/article/view/13>
27. Lu L. Nuevo patrón de desarrollo en china: circulación dual del mercado interno y externo. Revista Cubana de Administración Pública y Empresarial, 2021;5(3):e176. [consulted 19 april 2024] Available in: <https://doi.org/10.5281/zenodo.5517670>
28. Xiong M, Zhang F, Zhang H, Wang H. Digital economy, credit expansion, and modernization of industrial structure in China. Finance Research Letters. 2023;58-Part C, 104500, [consulted 21 april 2024] Available in: <https://doi.org/10.1016/j.frl.2023.104500>.
29. Anju S. Pequeñas y medianas empresas de Shanghái. Revista Cubana de Administración Pública y Empresarial, 2022;6(3): e245. [consulted 15 april 2024] Available in: <https://doi.org/10.5281/zenodo.7278422>
30. Miranda A. Impacto de la tecnología de trasplante mecanizado de arroz. Revista Cubana de Administración Pública y Empresarial, 2020;4(3):334–349. [consulted 21 april 2024] Available in: <https://apye.esceg.cu/index.php/apye/article/view/143>
31. Hussen S, Novel approaches and practices to sustainable agriculture. Journal of Agriculture and Food Research. 2022;10:100446. [consulted 21 april 2024] Available in: <https://doi.org/10.1016/j.jafr.2022.100446>