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DOCTORAL THESIS
INNOVATION MANAGEMENT AND DIGITAL TRANSFORMATION
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SUMMARY

The doctoral thesis addresses innovation management and digital transformation in public administration, with an empirical focus on local public administration in Romania. The research starts from the premise that the adoption of digital technologies and the development of online services do not, in themselves, generate administrative modernization, innovation, or high-quality public services. The effects of digitalization depend on how technology is integrated into the structures and processes of public organizations, management practices, the competencies of human resources, and the institution's relationship with citizens. From this perspective, digitalization is analyzed as part of a broader process of organizational and institutional transformation, while public innovation is understood in terms of the administration's capacity to generate relevant change and translate it into public value.

Local public administration provides a relevant analytical setting because the local authority is the institutional level at which modernization processes are most directly reflected in service delivery and in citizens' experience. At the same time, this level reveals important differences in administrative capacity, resources, digital competencies, internal coordination, and institutional openness. In Romania, the issue is amplified by the gap between strategic digitalization objectives and effective implementation, the fragmentation of IT solutions, limited interoperability, and the unequal use of digital services. In this context, the research is not limited to asking whether public administration is becoming digitalized, but seeks to explain the conditions under which digitalization can support innovation and the extent to which these processes are reflected in the quality of public services and in beneficiaries' experience.

The theoretical framework positions public innovation at the intersection of management, governance, organizational capacity, leadership, organizational culture, collaboration, and citizen participation. Digital transformation is treated as a socio-technical and managerial process that goes beyond simple computerization and entails the reconfiguration of processes, service integration, competency development, and user orientation. The literature review showed that numerous studies examine the technological dimension, the internal processes of public organizations, or beneficiaries' perceptions separately. The thesis addresses this fragmentation through an approach that connects the administration's internal perspective with the citizens' external perspective and considers innovation, digitalization, and public service quality together.

Within this framework, the overall objective of the research is to develop and substantiate a managerial model of innovation for local public administration in Romania that integrates digitalization as a strategic instrument and highlights the relationships among organizational and institutional factors, managerial mechanisms, innovation processes, and their outcomes at the level

of public services. The research was developed progressively: from clarifying the conceptual framework and identifying gaps in the literature, to examining the concrete state of digital solutions in urban local public administration, investigating the internal mechanisms that support innovation and digitalization, analyzing how these processes are perceived by citizens, and, finally, integrating the two perspectives into a unified managerial model. Thus, the research objectives are subordinated to the same central question concerning the components and conditions through which a digitalization-based managerial model of innovation can contribute to improving local public services.

The research uses a mixed, exploratory, and explanatory design organized across complementary levels of analysis. The first component is conceptual and bibliometric and aims to position the topic within the specialized literature. Bibliographic data extracted from the Web of Science Core Collection were analyzed using VOSviewer and keyword co-occurrence techniques in order to identify the main thematic directions and the relationships among public innovation, digitalization, and public services. This stage provides the foundation for the conceptual model and highlights the need for a perspective that integrates organizational, managerial, technological, and institutional dimensions.

The second component investigates the state of digital solutions in urban local public administration in Romania. The analysis is exhaustive and includes all 324 municipalities and towns. The database was constructed by combining responses to official requests, information available on institutional websites, and data from the National Institute of Statistics on regional GDP per capita. The distribution of digital platforms was analyzed descriptively and cartographically using QGIS, while the relationships between structural characteristics and the probability of implementation were investigated using the Chi-Square test and binary logistic regression. The national platform ghișeul.ro was not used as an indicator of the existence of a local digital solution because it is developed and managed centrally and does not directly reflect a local administration's capacity to adopt and manage its own solutions.

The organizational dimension of the research is based on data collected from 780 civil servants employed by local authorities, from all eight development regions of Romania and from communes, towns, and municipalities. The analysis examines how organizational capacity, leadership, organizational culture, and the digital competencies of human resources are associated with digitalization and innovation processes and how these are reflected in the quality of public services. The beneficiaries' perspective is captured through a second questionnaire completed by 438 citizens, which examines transparency, trust in public administration, civic participation, innovation, digitalization, the quality of digital public services, and satisfaction with them. The

questionnaire-based components use non-probability samples, an aspect taken into account in interpreting the results.

For the two surveys, data analysis was conducted in stages using descriptive statistics, exploratory factor analysis, assessment of internal reliability, and correlation analysis, followed by Partial Least Squares Structural Equation Modeling (PLS-SEM) and bootstrapping to test indirect effects. Two complementary empirical models were developed: the first captures organizational and managerial mechanisms within the administration, while the second explains how institutional and relational dimensions are reflected in citizens' evaluations. In the final stage, the results of the two models are compared and conceptually correlated. The integration does not represent statistical triangulation or the estimation of a third common structural model, but rather an interpretive synthesis through which the convergences and differences between the two perspectives are used to substantiate the integrated managerial model.

The bibliometric analysis highlights the complex and interdisciplinary nature of the field. For public innovation, 3,388 records were identified in the Public Administration category of Web of Science, and the co-occurrence analysis delineated ten clusters around themes such as governance, management, performance, participation, leadership, and services. For digitalization, 388 records were identified in the same category, organized into seven clusters reflecting technological, organizational, political, and social dimensions. The search in which public innovation and digitalization appear together yielded 141 publications, while the extended analysis of the intersection between innovation, digitalization, and public services confirmed both a shared core of research concerns and the relatively limited number of studies that explain, in an integrated manner, the role of organizational, managerial, and institutional factors. This finding substantiates the need for the model developed in the thesis. This is because innovation, digitalization, and public service development do not appear as isolated dimensions, but as interconnected processes. Digitalization provides new tools and possibilities for delivering public services; however, without an innovative organizational culture, these processes may remain formal or ineffective. At the same time, innovation without digitalization risks remaining at the level of marginal changes with limited impact. Thus, the results of the bibliometric analysis show that digitalization provides the infrastructure and tools, while innovation provides the managerial and organizational logic through which these tools generate public innovation.

The structural-territorial analysis shows that the digitalization of urban local public administration is advanced but uneven. Of the 324 urban administrative-territorial units analyzed, 219, representing 67.6%, have local digital platforms, while 105, representing 32.4%, have not implemented such solutions. The proportion is higher among municipalities, where 81.4% have digital platforms, compared with 61.3% of towns. The relationship between type of locality and

platform implementation is statistically significant, and the logistic regression model shows that municipalities have approximately 2.88 times greater odds than towns of adopting a digital platform. By contrast, regional GDP per capita is not statistically significantly associated with platform implementation in the estimated model. For the indicators used, the result points to the importance of structural characteristics and administrative capacity in understanding differences in digitalization at the local level.

The descriptive analyses of the two questionnaires reveal a difference in perspective between the internal view of the administration and that of public service beneficiaries. Civil servants evaluate both digitalization and innovation favorably, these recording the highest mean values among the constructs analyzed. By contrast, citizens' assessments are more moderate. Digitalization is also the most favorably evaluated dimension in their case, but civic participation records the lowest mean value, while trust in public administration and perceptions of innovation fall in the middle range of the scale. This difference suggests that the existence and development of digital tools are not automatically accompanied by a comparable strengthening of participation, trust, and the relationship between the administration and the community.

The model developed from the perspective of civil servants shows that digital transformation is supported especially by organizational capacity and the digital competencies of human resources. With regard to innovation, the results highlight the relevance of participatory leadership, organizational culture, and digital competencies, and above all the central position of digitalization, which is positively and significantly associated with innovation. An important and nuanced result concerns the relationship between traditional leadership and digitalization. This relationship was confirmed, but in the opposite direction to that theoretically anticipated. This result shows that, in local public administration, certain bureaucratic elements - the formalization of procedures, hierarchical clarity, and organizational control - can facilitate the implementation of digitalization processes. In other words, digitalization does not always imply the elimination of traditional structures, but may be supported by formal coordination mechanisms when these are adapted to technological and administrative requirements. The fact that participatory leadership influences innovation but does not directly influence digitalization shows that participation and managerial openness are more important for generating new ideas and organizational change than for the mere implementation of digital solutions. At the same time, both digitalization and innovation are positively associated with the assessment of public service quality. The analysis of indirect effects completes this picture and shows that organizational resources and mechanisms become relevant to outcomes through intermediate processes of digitalization and innovation. From this perspective, technology does not substitute for management, and organizational resources do not automatically generate innovation; their value depends on how they are activated and integrated

into the process of change. Digitalization contributes by improving the efficiency and accessibility of public services, while innovation contributes by adapting them to beneficiaries' needs. The model shows that the modernization of local public administration cannot be reduced to the implementation of digital solutions. Digitalization is necessary, but it is not sufficient. It must be integrated into a coherent managerial model in which innovation functions as a mechanism for transforming technology into high-quality public services.

The model constructed from the citizens' perspective highlights another side of the same process. Trust in public administration emerges as the factor with the strongest structural relationship with innovation, alongside civic participation and transparency. With regard to digitalization, transparency and innovation play significant roles, while civic participation and trust do not show significant direct effects in the estimated model. Thus, civic participation and trust in public administration do not necessarily act directly on digitalization, but rather through innovation and other institutional mechanisms. For the quality of digital public services, trust in public administration and innovation are the factors with the strongest relationships, while digitalization has a smaller direct effect. By contrast, for satisfaction with public services, digitalization is the main determinant.

These results show that citizens do not evaluate the modernization of public administration exclusively through the presence of technological solutions. Trust, transparency, and opportunities for participation are associated with how the administration's capacity to innovate is perceived, while the concrete experience of digital services is of major importance for satisfaction. The mediation analyses support this interpretation: innovation mediates some of the relationships between institutional dimensions and the outcomes perceived by citizens, while digitalization transmits an important part of the effect of innovation to satisfaction with services. It follows that the public value of digital transformation is generated when organizational and institutional change is translated into services that are accessible, functional, and useful to beneficiaries. Thus, the model shows that innovation and digitalization are essential mechanisms through which the institutional characteristics of local public administration are translated into perceived quality and satisfaction.

The comparison of the two models highlights both convergences and an essential difference in perspective. In the organizational model, digitalization appears as an important prerequisite for innovation, while in the model based on citizens' perceptions, innovation is associated with the development and expansion of digitalization. The thesis interprets this duality through the different positioning of the actors in relation to the same process: for the civil servant, technology and digital tools create the conditions for changing internal processes; for the citizen, the innovative character of the administration becomes visible through digital solutions and through the way in which they change the experience of using services. From this perspective, the relationship between innovation

and digitalization is interdependent and dynamic, and the two processes mutually reinforce each other in the transformation of local public administration.

Correlating the two perspectives provides the foundation for the integrated managerial model of innovation, adapted to the specific characteristics of local public administration in Romania. The model connects the organization's internal dimension - organizational capacity, managerial mechanisms, culture, and digital competencies - with the institutional and relational dimension - trust in public administration, transparency, and civic participation. Innovation and digitalization occupy central positions in the transformation mechanism, while service quality and citizen satisfaction represent the outcomes through which administrative change becomes relevant to the community. The model is not conceived as a rigid sequence of relationships, but as a dynamic system in which the components influence one another and in which service outcomes may, through feedback, strengthen trust and the legitimacy of future change.

From a managerial perspective, the proposed model shows that the transformation of local public administration first requires strengthening organizational capacity, coordination, monitoring, and learning mechanisms, as well as developing the digital competencies of staff. These conditions must be complemented by managerial practices that support innovation, collaboration, and the effective use of knowledge. Digitalization must be integrated into administrative processes and linked to explicit objectives for innovation and service improvement, avoiding an approach in which technology implementation becomes an end in itself. At the same time, transparency, civic participation, and trust in public administration must be treated as dimensions of transformation, not merely as secondary outcomes of it.

The main theoretical contribution of the research lies in developing a framework that moves beyond fragmented approaches and integrates internal organizational determinants with external institutional dimensions. The thesis argues that digitalization does not automatically produce innovation or public value, but operates within a broader ecosystem of capacities, managerial practices, and relationships with citizens. A distinct contribution is the identification of the bidirectional relationship between digitalization and innovation, interpreted as a process of coevolution: digitalization can facilitate innovation in processes and services, while an orientation toward innovation can lead to the more effective development and use of digital solutions. The originality of the research is reinforced by the simultaneous integration of the perspectives of public service providers and beneficiaries.

From a methodological perspective, the research combines bibliometric analysis, territorial mapping of digital platforms, an exhaustive analysis of urban administrations, two quantitative surveys, and two PLS-SEM models within a multi-level research framework. From an applied perspective, the model provides a reference point for local modernization strategies, indicating that

investment in technology must be correlated with the development of organizational capacity, digital competencies, and managerial mechanisms, and that the assessment of transformation must include, alongside the level of digitalization, service quality, transparency, participation, trust, and citizen satisfaction. Digitalization is thus repositioned from a technical end in itself to a strategic instrument of innovation and public value creation.

The interpretation of the results must take into account the methodological limitations acknowledged in the thesis. The questionnaire-based components use non-probability samples, which limits strict statistical generalization to the entire population. The data are cross-sectional and self-reported; therefore, the relationships identified through structural modeling should be understood as explanatory models and associations observed at the time of the research, without being converted into definitive longitudinal causal inferences. In the analysis of urban administrations, the existence of a digital platform does not fully capture its complexity, functionality, or actual degree of use, while regional GDP per capita is an aggregate indicator. At the same time, the research benefits from large sample sizes, nationwide geographical coverage, the exhaustive nature of the urban analysis, and the use of two complementary empirical perspectives, elements that support the relevance and robustness of the research design.

Overall, the research shows that the digital transformation of local public administration cannot be reduced to the adoption of technologies or platforms. It requires a managerial framework capable of linking organizational resources, competencies, leadership, and organizational culture with institutional openness and citizen orientation. Digitalization and innovation emerge as interdependent processes through which the administration can transform its internal capacities into more accessible and relevant public services. At the same time, the results show that the performance of transformation cannot be assessed solely from within the institution, but must also be related to beneficiaries' trust, participation, experience, and satisfaction.

The proposed integrated managerial model synthesizes this perspective and constitutes the central contribution of the thesis. It provides a coherent explanation of how organizational and institutional dimensions can be brought together in a continuous process of innovation and digitalization oriented toward public value. In this logic, the modernization of local public administration becomes a managerial and institutional process of continuous adaptation, in which technology is relevant insofar as it is supported by organizational capacity, translated into innovative change, and validated through the quality of the citizen experience.