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ANALYSIS OF PUBLIC SECTOR PERFORMANCE

SUMMARY

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Doctoral thesis topic and research field

The topic of this doctoral research is the analysis of public sector performance in the European Union, within the field of public finance, with a focus on the way in which collective resources managed by the state and the institutional framework governing their administration are transformed into observable outcomes for the economy and for citizens. From a public finance perspective, public sector performance is closely related to the capacity of institutions to use resources collected through fiscal and budgetary mechanisms in order to produce measurable economic, administrative and social outcomes. Consequently, the analysis of performance is inseparable from the issue of the efficient use of public resources.

In the public finance literature, the analysis of public sector performance is closely linked to the manner in which states use collective resources to generate economic and social outcomes. Evaluating the performance of public institutions therefore involves examining the relationship between resources mobilized through fiscal mechanisms and the outcomes generated by their use within the economy and society. From this perspective, public sector performance reflects not only the level of available resources but also the capacity of public institutions to organize efficient administrative processes and to implement public policies that generate observable results.

In the context of economic and institutional transformations within the European Union, evaluating public sector performance has become a central concern for research in public finance. Pressures on public budgets, increasing demand for public services and the need to maintain fiscal sustainability require a more efficient use of collective resources. Under these conditions, the analysis of public sector performance does not focus solely on the volume of public expenditures or the size of the public sector, but rather on the way public resources are transformed into observable economic and social outcomes.

The economic and institutional integration of European Union member states provides a relevant framework for investigating public sector performance from a comparative perspective. Member states operate within a common normative system and are subject to similar economic and institutional constraints. However, the outcomes they achieve in terms of economic development, quality of public administration and public policy performance differ significantly. This context makes it possible to analyze how the institutional characteristics of public administrations influence the outcomes generated by the use of collective resources.

The research starts from the observation that European Union member states function within a comparable normative and institutional framework and face similar economic and social constraints, yet they achieve different public outcomes. This situation becomes particularly visible in periods characterized by economic pressures or systemic shocks, when the capacity of public institutions to implement policies and maintain the functioning of public services becomes decisive for the outcomes achieved.

In such contexts, differences between states are often associated with the way public administrations organize the implementation of public policies and use available resources. Administrative capacity, the quality of governance and institutional coordination influence the way in which public policies are translated into observable outcomes. This suggests that public sector

performance depends significantly on the institutional mechanisms through which public resources are managed and used.

This divergence indicates that evaluating public sector performance cannot be reduced to the level of public expenditure, but must instead be analyzed through the way collective resources and institutional rules are converted into observable outcomes. In this sense, public sector performance is interpreted as the result of a process of institutional conversion, in which budgetary resources, administrative rules and governance mechanisms are transformed into economic and social outcomes through the capacity of public institutions to implement public policies.

The concept of institutional conversion reflects the relationship between public resources and the administrative mechanisms through which these resources are transformed into public outcomes. Within this framework, public institutions are not merely administrative structures that manage budgetary resources, but mechanisms through which public policies are implemented and adapted to economic and social contexts. The quality of administrative processes, the existence of accountability mechanisms and the use of performance information therefore influence the capacity of public administrations to transform available resources into observable outcomes.

From this perspective, the dissertation treats public sector performance as a public finance problem concerning the conversion of collective resources into public outcomes. Differences between states are interpreted as differences in institutional implementation rather than as simple differences in the volume of public expenditures. Through this perspective, the research positions itself within the field of public finance by analyzing the relationship between budgetary resources, the institutional framework of governance and the public outcomes generated at the level of the economy and society.

This approach allows the analysis of public sector performance to be integrated into an institutional perspective on public finance, in which the outcomes of public policies are influenced by the way institutions organize administrative processes and coordinate the implementation of public decisions. In this sense, public sector performance is analyzed as the result of the interaction between collective resources, institutional rules and the administrative mechanisms through which public policies are implemented.

The central research question aims to explain the differences in public sector performance between European Union member states through institutional implementation capacity, when performance is analyzed multidimensionally across economic, managerial, digital and environmental dimensions. This approach starts from the idea that public sector performance cannot be evaluated through a single indicator, because the outcomes of public administration manifest simultaneously in several areas of state functioning.

A multidimensional analysis of public sector performance makes it possible to examine how public administrations generate outcomes in different domains of state activity. Economic performance reflects the capacity of institutions to support economic development and the well-being of the population. Managerial performance refers to the efficiency with which administrative resources are used. Digital performance highlights the degree of digitalization of public services and the capacity of public administrations to adopt digital technologies. Environmental performance reflects the way in which public policies contribute to the sustainable management of natural resources.

For this purpose, the research proposes a conceptual model in which the transversal mechanism is institutional implementation capacity, defined operationally as the ability of public institutions to transform resources and administrative rules into observable outcomes under conditions of constraints and shocks. This mechanism reflects the way in which public institutions coordinate administrative processes, apply institutional rules and use performance information in order to transform collective resources into public outcomes that are comparable across states and over time.

Institutional implementation capacity is interpreted in this research as a mechanism that mediates the relationship between public resources and the outcomes generated by public policies. In the absence of effective mechanisms of administrative coordination and institutional accountability, public resources may generate limited outcomes or may be used inefficiently. For this reason, the analysis of public sector performance must examine how public institutions use performance information and coordinate administrative processes in order to improve public policy outcomes.

This mechanism is operationalized through institutional accountability and integrity, strategic coordination, the use of performance information in public decision-making and data governance in digital processes. Through these dimensions, institutional implementation capacity is analyzed as a transversal factor that influences the way public administrations manage resources and respond to economic, administrative and social pressures.

From this perspective, public sector performance is analyzed as a multidimensional phenomenon. The research therefore aims to connect within a unified comparative framework four dimensions of public performance, namely the economic dimension, the managerial dimension of public administration, the digital dimension of public services and the environmental dimension. Integrating these dimensions within a common analytical framework makes it possible to analyze public sector performance not only as a result of the use of public resources but also as an expression of the way in which public institutions manage administrative processes, adopt technological innovations and respond to the challenges of sustainable development.

Therefore, the research proposes an integrated interpretation of public sector performance in which differences between states are analyzed through the lens of institutional implementation capacity and the way in which public institutions organize administrative processes, use performance information and coordinate the implementation of public policies.

In this way, the research seeks to explain how public institutions in European Union member states transform public resources and administrative rules into observable outcomes that are comparable across countries and over time, proposing an integrated interpretation of public sector performance in which differences between states are analyzed through the lens of institutional implementation capacity.

Research objectives and methodology

The general objective of this research is the multidimensional evaluation of public sector performance in the European Union, with reference to institutional implementation capacity as a transversal mechanism through which resources and rules are converted into observable outcomes. This evaluation is conducted within comparative frameworks across member states and across distinct time intervals appropriate to each dimension under investigation. Through this formulation, the research aims to empirically examine the way institutional, economic and administrative variables are associated with public sector outcomes in comparative contexts across countries and over time.

In order to achieve this general objective, the research is structured into chapters that combine theoretical analysis with empirical investigation. Each chapter is built around specific objectives, a clearly defined sample and a methodological approach appropriate to the nature of the phenomenon analyzed. This structure reflects a progressive approach to the analysis of public sector performance, in which the conceptual foundation is followed by empirical investigation of the economic, managerial, digital and environmental dimensions of public performance. Through this organization, the research seeks to maintain coherence between the conceptual framework developed in the theoretical chapter and the empirical strategies used to analyze each dimension of public sector performance.

Within this framework, the research design is constructed so that each dimension of public sector performance is analyzed using a methodology appropriate to the nature of the phenomenon investigated and to the structure of the available data. The use of different methods allows the investigation of relationships between institutional, economic and administrative variables in distinct analytical contexts, while maintaining the conceptual coherence of the research. This methodological approach combines quantitative analytical tools with comparative procedures across countries, so that the results obtained reflect both institutional differences among public administrations and the evolution over time of the indicators analyzed.

The operationalization of the research objectives, together with the methods employed, the samples analyzed and the time intervals corresponding to each chapter, is summarized in Table 1.

Table 1. Summary of the research design by chapters

Chapter	Type of research	Methodology	Objectives	Sample
1	Mixed	Critical review of the scientific literature; Bibliometric analysis	O.1 Identifying inconsistencies in the definition and measurement of public sector performance. O.2 Highlighting conceptual contradictions and thematic gaps concerning the institutional mechanism of performance.	Number of publications identified: 1343; Period: 1973–2026
2	Quantitative	<ul style="list-style-type: none"> Panel data regression analysis: Pooled OLS; 	O.3 Defining and delimiting the concepts of corruption and rent-	EU Member States (n = 28);

		REM; FEM; LSDV; PCSE; FGLS	<p>seeking, highlighting the theoretical distinction between them as failures of the state system.</p> <p>0.4 Examining the effects of these phenomena on economic growth in the literature.</p> <p>0.5 Investigating the relationship between GDP per capita, corruption level and rent-seeking activities.</p> <p>0.6 Developing a statistical model integrating governance variables to quantify the impact of corruption in the EU.</p>	Period: 2000–2019
3	Quantitative	Data Envelopment Analysis (DEA)	<p>0.7 Defining and operationalizing inputs (resources and governance indicators) and outputs (public sector performance indicators at country level).</p> <p>0.8 Estimating DEA scores for EU27 in 2019 and 2020 and identifying benchmark states.</p> <p>0.9 Analyzing differences between 2019 and 2020 in efficiency scores.</p> <p>0.10 Evaluating the relative efficiency of transforming resources into outcomes related to citizens' satisfaction.</p>	EU Member States (n = 27); Period: 2019–2020
4	Quantitative	Difference-in-Differences (DiD)	<p>0.11 Evaluating the role of pre-pandemic digital readiness versus reactive measures.</p> <p>0.12 Estimating the effect of COVID-19 on digitalization using the DiD model.</p> <p>0.13 Analyzing the influence of governance (transparency, accountability, trust) and</p>	EU Member States (n = 27); Period: 2016–2023

			deriving policy implications.	
5	Quantitative	<ul style="list-style-type: none"> Panel data regression analysis: Pooled OLS; REM; FEM; LSDV; PCSE; Two-Step GMM 	<p>O.14 Analyzing the relationship between education, governance quality and environmental performance.</p> <p>O.15 Estimating a macro-determinant model (governance pillars, GDP, energy, industry).</p> <p>O.16 Deriving policy implications regarding governance priorities and the education–environment link.</p>	43 countries including EU and G20; Period: 1995–2020

Source: Author's processing.

In order to achieve the research objectives summarized in Table 1, the dissertation adopts an integrated approach that combines a critical review of the scientific literature with empirical and methodological strategies appropriate to each research hypothesis, while explicitly delimiting the interpretative scope of each method. Through this methodological structure, the research seeks to establish a clear connection between the theoretical objectives of the study and the empirical tools used to investigate the relationships among the analyzed variables.

This approach allows the investigation of public sector performance through different analytical instruments, each method being applied according to the nature of the phenomenon examined and the structure of the available data. Panel data econometric methods enable the examination of relationships between economic and institutional variables within the comparative framework of European Union member states. Data Envelopment Analysis allows the evaluation of the relative efficiency with which administrative resources are transformed into public sector outcomes. The Difference-in-Differences method enables the investigation of developments associated with an exogenous shock affecting the digitalization of public services.

The time intervals used in the empirical chapters differ across analyses. This variation does not represent a methodological inconsistency but rather a research design choice aligned with the nature of the phenomena investigated and with the identification conditions specific to each method. The analysis of the relationship between corruption, governance and economic well-being is conducted for the period 2000–2019 in order to capture structural relationships between institutional variables and economic outcomes in European Union member states. The evaluation of relative efficiency using Data Envelopment Analysis employs the years 2019 and 2020 to compare the positioning of states before and during the pressures associated with the COVID-19 pandemic, interpreting efficiency scores as comparative positions rather than causal relationships. The analysis of the digitalization of public services uses the period 2016–2023 in order to clearly distinguish between the pre-pandemic and post-pandemic intervals when evaluating the effect of the COVID-19 shock through the Difference-in-Differences method. In the case of the environmental performance

analysis, the period 1995–2020 allows the identification of long-term dynamics of economic, institutional and energy variables within the extended sample of analyzed states.

The theoretical component clarifies the operational definitions of the concepts used and supports the selection of indicators and samples. The empirical component operationalizes performance across distinct dimensions and applies quantitative techniques aligned with the structure of the available data in order to test the investigated relationships, conduct comparative benchmarking and identify variations associated with exogenous shocks. The results are presented in a transparent manner through tabular syntheses and graphical representations that support interpretation and comparability across countries and periods, without transferring conclusions from one methodological framework to another.

Structure of the dissertation

Based on the research design summarized in Table 1, the structure of the dissertation is organized into five chapters that progressively develop the analysis, moving from the conceptual foundation of public sector performance toward the empirical investigation of its economic, managerial, digital and environmental dimensions. This structure reflects the logic of the research, in which the theoretical and conceptual framework is followed by distinct empirical analyses, each examining a specific dimension of public sector performance within the comparative framework of the European Union. The integrated approach combines a critical review of the scientific literature with empirical and methodological strategies appropriate to each research hypothesis, while explicitly delimiting the interpretative scope of each method so that the results can be interpreted within the same analytical logic without transferring conclusions from one methodological framework to another.

Beginning with the empirical chapters, each analysis follows a standard academic structure that includes the introduction and contextualization of the topic, the review of the relevant literature, the presentation of data and methodology, and the analysis of the results. This organization ensures a consistent structure across the empirical chapters and facilitates the comparability of the analyses conducted within the research. Each chapter concludes with a section of conclusions that synthesizes the main results, the limitations of the research and the implications of the analysis. The results are presented in a transparent manner through tabular summaries and graphical representations that support interpretation and comparability across countries and periods, while the specific limitations of each chapter are explicitly formulated in order to delimit the conditions of validity of the conclusions and justify the directions for further research.

The first chapter, entitled “Theoretical foundations and the state of research in the field of public sector performance”, establishes the conceptual framework of the research and the operationalization of public sector performance. The analysis clarifies the relationship between the resources used, the results of public services and their effects on the economy and society, following the input–output–outcome logic. This chapter discusses the main theoretical approaches to public sector performance and examines how the academic literature defines and measures the results of public administration. In addition to the critical review of the literature, the chapter also includes a bibliometric analysis of publications indexed in the Web of Science database for the period 1973–2026, which highlights the evolution of research in the field and the main thematic directions of the literature. The bibliometric analysis is conducted using VOSviewer on a corpus of 1,343 publications and allows the identification of 12 thematic clusters. Among these, the term “implementation” occupies a peripheral position in the keyword network, although it is essential for explaining the difference between the design of public policy instruments and their effects in practice, an aspect that is central to the conceptualization of the transversal mechanism of the dissertation. The conclusions for this part are integrated within the subchapters through conceptual delimitations and syntheses that explicitly lead toward the empirical analysis.

The empirical analysis begins with the second chapter, entitled “The impact of corruption and rent-seeking behaviour on economic well-being in the European Union”. The research investigates the relationship between corruption, governance quality and economic well-being in the member

states of the European Union, using panel data econometric models for the period 2000–2019. The analysis examines how institutional variables are associated with differences in economic well-being across states and evaluates the role of governance quality in the process of using public resources. Economic well-being is operationalized through GDP per capita, while governance quality is introduced explicitly through institutional indicators such as voice and accountability, government effectiveness, rule of law and control of corruption, used to capture institutional constraints affecting rent-seeking behaviour and the efficiency of public decision-making. The methodological specifications are adapted to the structure of the samples. PCSE is applied to the full EU28 sample, while FGLS is used for the OMS and NMS subsamples, ensuring the robustness of results to structural differences between groups. In order to capture institutional differences within the European Union, the analysis explicitly compares new member states and old member states. Through this comparative approach, the chapter highlights how different institutional environments can influence the economic outcomes of member states.

The managerial dimension of public sector performance is examined in the third chapter, entitled “Strategic planning and performance in public institutions of the European Union”. The empirical evaluation uses the Data Envelopment Analysis method for EU27 member states and compares the years 2019 and 2020 in order to examine the relative efficiency of transforming resources and administrative capacity into public sector outcomes, including citizens’ satisfaction with public services. By applying this method, the research aims to identify states that function as efficiency benchmarks and to evaluate differences between countries in terms of the use of administrative resources. The selected model is the BCC model with variable returns to scale and output orientation, appropriate when states differ in size and administrative structure and when the relationship between resources and results may vary within the sample. Inputs reflect resources and governance conditions associated with strategic planning, while outputs include indicators of public sector performance, among which citizens’ satisfaction with public services represents the link with the perception of final beneficiaries. The comparison of the two years also allows the examination of how public administrations positioned themselves relative to the efficiency frontier in a context characterized by systemic pressures associated with the COVID-19 pandemic.

The fourth chapter, entitled “Digital transformation and public sector performance in Europe during the COVID-19 period: Evidence from European Union member states using the Difference-in-Differences method”, investigates the dynamics of public service digitalization in the context of the COVID-19 pandemic. The analysis is conducted for EU27 member states over the period 2016–2023 and uses the Difference-in-Differences method to evaluate the evolution of digital public services before and after the pandemic shock, based on DESI indicators. This approach makes it possible to investigate how the pandemic influenced the pace of digitalization in public administration and to highlight differences between states with different initial levels of digital preparedness. The treatment group is defined based on the 2019 DESI score and includes the 14 states with lower initial levels of digitalization indicators. The parallel trends assumption is validated both graphically and statistically, ensuring the validity of the statistical interpretation, while the extended specification includes variables related to transparency in service delivery, data protection and the use of e-government in order to capture institutional factors that moderate the effect of the pandemic shock.

Through this analysis, the chapter explores the role of the institutional context and administrative capacity in the process of adopting and developing digital public services.

The final empirical chapter, entitled “The impact of governance quality and education level on environmental performance”, extends the analytical framework toward the environmental dimension of public sector performance. The research examines the relationship between education, governance quality and CO₂ emissions per capita within a sample of 43 states from the European Union and the G20 for the period 1995–2020, using panel data econometric models and procedures to control for endogeneity, including the Two-Step GMM method. The methodological framework combines six specifications, namely Pooled OLS, REM, FEM, LSDV, PCSE and Two-Step GMM, allowing the identification of robust results that remain consistent across specifications, in contrast to specification-dependent results that require more cautious interpretation. Governance quality is introduced through four distinct dimensions: government effectiveness, regulatory quality, control of corruption and rule of law. The Two-Step GMM procedure controls for endogeneity through the validation of instruments using the Sargan–Hansen and Arellano–Bond tests. By including an extended sample of states and a longer time interval, the analysis aims to identify the economic, institutional and energy factors that may influence environmental performance.

The dissertation concludes with the section of general conclusions, which synthesizes the results obtained in the empirical chapters and integrates the main conclusions of the research in relation to the general objective of the study. This section brings together the results of the analyses conducted on the four dimensions of public sector performance and highlights the role of institutional implementation capacity in explaining performance differences between the analyzed states. The section discusses the implications for public policy, the limitations of the research and the directions for future research. The interpretation is developed with reference to institutional implementation capacity as the transversal mechanism, with emphasis on the conditions under which resources, rules and public policy instruments can be transformed into observable outcomes for citizens and for the economy. Public policy recommendations are organized around four complementary pillars: strengthening institutional integrity and accountability, improving strategic coordination and resource performance management, treating digitalization as a structural investment in administrative capacity, and prioritizing the energy transition within sustainability policies.

Original results, conclusions, scientific contributions and relevance

This section synthesizes the original results obtained in each empirical chapter of the dissertation, formulates the integrated conclusions at the level of the transversal mechanism, details the contributions to the scientific field of public finance and public sector performance, and discusses the practical relevance for decision-makers in the European Union. The analytical architecture of the research is multidimensional: five chapters address, through distinct methods, four dimensions of public sector performance, namely the economic, managerial, digital and environmental dimensions. Each result is interpreted within the limits of the method that produces it, while the transversal convergences are discussed at the level of the institutional implementation mechanism, without equating the measurement registers of the methods employed.

1. Original results by chapters

Chapter 1. Theoretical framework and state of research. Bibliometric analysis

Chapter 1 performs a dual function within the architecture of the dissertation: clarifying inconsistencies in the definition and measurement of public sector performance and providing a bibliometric grounding for the gaps concerning the institutional mechanism of performance, in relation to objectives O.1 and O.2. The bibliometric analysis was conducted using VOSviewer on a corpus of 1,343 publications indexed in Web of Science over the period 1973–2026. The increase in academic interest is visible in the evolution of the annual number of publications: the intensification of interest after 2018 and a peak of 117 records in 2025 indicate a consolidation of scientific interest and a diversification of empirical applications in the recent literature.

The first key result concerns the thematic structure of the field. The term performance management records 160 occurrences, while performance measurement records 107, suggesting that public sector performance is approached predominantly through operational frameworks of measurement and through the managerial use of performance information. The coexistence of this core with terms oriented toward outcomes and public value indicates the existence of potentially non-uniform definitions of performance across studies, with direct consequences for the comparability of conclusions. The terms efficiency, with 65 occurrences, and data envelopment analysis, with 38, outline a second quantitative core centered on the comparative evaluation of efficiency. The institutional terms corruption, good governance, accountability and transparency indicate the existence of a distinct cluster oriented toward the quality of the institutional environment.

The second key result concerns consistency with the literature. The bibliometric studies compared in Table 3, including Roy, Bahuguna and Rawat (2023), Branet and Hategan (2024), Croitoru et al. (2025), Elagaili et al. (2025), and Cvetkoska, Eftimov and Kitanovikj (2023), confirm the alignment of the present analysis with the directions highlighted in recent bibliometric literature. The performance management and performance measurement core appears dominant in all the

comparative analyses, the instrumental axis including balanced scorecard, benchmarking and performance indicators is confirmed as a recurrent direction, and the relevance of DEA in measuring public sector performance is supported by a study dedicated to this method. These convergences indicate that the results of the present bibliometric analysis are not idiosyncratic but reflect a stable structure of the research field. The literature suggests that performance indicators may be interpreted differently and used unevenly in decision-making, which reduces the comparability of conclusions across studies and supports the need for stable operational definitions in this research.

The third result concerns the peripheral positioning of the term implementation within the keyword network structure. Cluster 12, consisting of a single term, implementation, remains at the periphery of the network, although it is essential for explaining the difference between the design of public policy instruments and their concrete effects in practice. This observation supports, through bibliometric evidence, the need to treat institutional implementation capacity as the transversal mechanism of the dissertation.

Chapter 2. Corruption, rent-seeking and economic well-being in the EU

Chapter 2 addresses the economic dimension of public sector performance by estimating the impact of corruption and rent-seeking behavior on economic well-being, operationalized through real GDP per capita. Objectives 0.3–0.6 are pursued through panel data regressions for the EU28 over the period 2000–2019, the econometric model being adapted from Thach, Duong and Oanh (2017) and complemented with indicators reflecting governance quality from the perspective of public choice theory. The methodological specifications are adapted to the structure of the samples: PCSE is applied to the full EU28 sample, while FGLS is applied to the OMS and NMS subsamples, being more appropriate for panels with a smaller number of entities.

The first key result confirms that the relationship between corruption and economic well-being, measured through GDP per capita, is negative for the EU as a whole, while the new member states appear to be more affected compared with the old member states. In the PCSE model applied to the EU28, a one-unit increase in the rescaled corruption perception index is associated with a reduction of approximately EUR 1,259 per capita. At the subsample level, the difference in magnitude is substantial: in the new member states, the associated reduction is approximately EUR 631 per capita, compared with approximately EUR 165 in the old member states. This asymmetry confirms that more fragile institutional environments, characteristic of NMS with more recent democracies and a post-communist historical context, amplify vulnerability to corruption as a factor eroding economic well-being. The selected model explains 99.4% of the variation in GDP per capita in the LSDV model, with rho values of 99.16% for the EU28, 98.44% for OMS and 96.09% for NMS, supporting the use of country fixed effects.

The second key result concerns the association between governance quality and economic well-being. For the EU28 sample, the variables capturing governance quality are generally positively associated with economic well-being, which is consistent with the interpretation derived from public choice theory: higher levels of governance performance are associated with lower levels of rent-seeking and with a more efficient allocation of resources. A one-unit change in the democracy index is associated with an increase of approximately EUR 7,744 per capita, while a one-unit change in the

control of corruption is associated with an increase of approximately EUR 5,203 per capita, both in the PCSE model for the EU28.

The third key result concerns the contribution of human capital. Human capital makes a positive contribution, particularly through variables such as population change and level of education, which are positively associated with economic well-being in the analyzed sample. This finding contrasts with the original model of Thach, Duong and Oanh (2017), in which human capital variables exhibited a different behavior, representing a difference specific to the European context of the present dissertation.

The fourth key result concerns variables with an unexpected sign. Total fixed assets and government expenditure display negative influences on GDP per capita in the EU28 sample, but without being consistently supported by statistical significance in the reported specifications. The negative sign of government expenditure can be interpreted through its composition: government expenditure consists predominantly of current expenditure, especially expenditure on protection and social assistance, assigning a smaller weight to capital expenditure with a multiplier effect. This finding represents a difference compared with the original model of Thach, Duong and Oanh (2017), in which investment and government expenditure were expected to display positive influences.

The fifth key result concerns the consistent contribution of a set of variables across all the analyzed scenarios. Variables such as population change, trade openness, tertiary education completion, government effectiveness and rule of law make a positive and consistent contribution to economic well-being across all the analyzed scenarios, regardless of the methodological specification employed. In addition, regulatory quality and control of corruption appear as significant positive influences, confirming the role of an integrated package of institutional quality in supporting economic well-being.

As regards consistency with the literature, the results obtained with the model adapted from Thach, Duong and Oanh are in line with the reference literature suggesting negative effects of corruption on economic well-being, confirmed by Al Qudah et al. (2020) for Tunisia, Alfada (2019) for Indonesia, Anh and Tran-Nam (2016) for Vietnam, Shera, Dosti and Grabova (2014) for 22 developing countries, and Libman (2012) for Russian regions. The literature also highlights the role of institutional quality, including differences between NMS and OMS. A minor branch of the literature discusses the hypothesis of a positive correlation through the bypassing of bureaucratic procedures, an argument not supported by the results obtained in the European context. All results are formulated as associations in an observational design, without implying direct causal relationships.

Chapter 3. Strategic planning and relative efficiency. DEA analysis

Chapter 3 addresses the managerial dimension of public sector performance by estimating the relative efficiency of European Union member states in transforming resources and governance conditions associated with strategic planning into public sector outcomes, including citizens' satisfaction with public services. Objectives 0.7–0.10 are pursued through the BCC Data Envelopment Analysis method with variable returns to scale and output orientation, applied to the EU27 in 2019 and 2020. Inputs reflect resources and governance conditions associated with strategic planning, while outputs capture governance outcomes and citizens' satisfaction with public services.

The first key result identifies the states that remain on the efficiency frontier in both analyzed years: Bulgaria, Estonia, Finland, Luxembourg and Malta configure stable benchmarking references in the EU27 sample, with efficiency scores equal to 1 in both 2019 and 2020. The average efficiency of the 27 member states was approximately 89% in 2019, increasing slightly to approximately 90% in 2020, while the standard deviation declines, indicating relative convergence in the pandemic context, explainable through generalized administrative mobilization and emergency measures that attenuated the usual differences among states. France remains the state with the lowest relative efficiency score in both analyzed years, with a score of approximately 0.66 in 2019 and approximately 0.68 in 2020, which may be associated with institutional and administrative limitations affecting the conversion of resources into public sector outcomes. The stability of frontier states suggests that their positions are not conjunctural but reflect stable combinations of resources, quality of strategic planning and delivery capacity, in line with DEA literature on comparative benchmarking of public sector performance, as shown by Efthalitsidou et al. (2025), Horvathova and Mokrisova (2024), and Afonso and St. Aubyn (2006).

The second key result concerns shifts in positioning between 2019 and 2020. Improvements in relative efficiency scores are observed for Ireland, Romania, Czechia, Slovakia and Hungary, and deteriorations for Germany, Slovenia, Lithuania, Spain and Sweden. Among the notable advances are Ireland, which moves from 11th place to 6th place, suggesting adaptability and progress in economic strategies and investment in technology, Romania, which progresses from 17th place to 14th place, and Czechia, which rises from 16th place to 13th place, supported by structural reforms and the efficient absorption of European funds. Germany falls from 12th place to 18th place in 2020, indicating a relatively weaker position in the sample in the pandemic year, in line with the literature emphasizing that under pressure contexts, coordination capacity and rapid implementation become critical, as shown by Janhonen et al. (2025) and Ansell et al. (2021).

The third result concerns the dissociation between the volume of resources and outcomes perceived by citizens, confirmed empirically through correlation analysis. The correlation between government expenditure and citizens' satisfaction (CG and SC) remains low and becomes negative in 2020, which is compatible with the idea that the level of aggregate expenditure is not systematically associated with a better perception of public services. This finding directly supports the conclusion that performance depends on the quality of allocation and on strategic capacity, rather than on mere budgetary size. The results are compatible with the literature using DEA for comparative benchmarking of public sector performance and with research on governance in crisis, suggesting that in systemic shocks, differences between states may be associated with administrative capacity and coordination of implementation, without implying direct causal relationships.

Chapter 4. COVID-19 and the digitalization of public services in the EU

Chapter 4 addresses the digital dimension of public sector performance by evaluating the impact of the COVID-19 pandemic on the digital transformation of public administrations in the EU. Objectives 0.11–0.13 are pursued through the Difference-in-Differences method applied to the EU27 over the period 2016–2023. The treatment group is defined based on the 2019 DESI score: the

14 states with a lower initial level of digitalization indicators constituted the treated group. The parallel trends test and the Granger test validate the identification hypothesis of the model.

The first key result confirms that the post-pandemic effect estimated through DiD is positive and significant for digital public services in the states belonging to the treated group. The baseline DiD coefficient is $\beta = 8.23$, with a 95% confidence interval between 3.51 and 12.95 and country-clustered standard errors of 2.37, significant at $p < 0.001$. The estimated increase corresponds to an advance of 13.6% compared with the baseline mean value of 60.51 recorded by the treated group in the pre-pandemic period, supporting the interpretation that the pandemic acted as a catalyst for institutional change in the digital dimension, with a favorable differential effect for states with a structurally lower initial level of digital preparedness.

The second key result derives from the extended specification of the model, which includes additional institutional variables. The DiD interaction terms for the period 2020–2023 display increasing coefficients: 11.64 in 2020, 16.98 in 2021, 18.57 in 2022 and 20.47 in 2023, all significant at $p < 0.001$, indicating that the impact of post-pandemic digitalization amplifies progressively over the analyzed period, confirming the cumulative and processual character of digital transformation. The extended model explains 58.4% of the variation in the dependent variable ($R^2 = 0.584$, $F = 11.88$, $p < 2.22e-16$), confirming the overall relevance of the included variables. The variable representing transparency in service delivery, service design and personal data protection exhibits a significant positive coefficient of 0.399 at $p < 0.001$, indicating that greater transparency correlates with a higher quality of digital public services, in line with theories of accountability and public trust.

The third key result concerns the use of e-government, the variable that appears negatively associated with the digital public services index in the extended model, with a coefficient of -1.007 at $p = 0.028$. This association is interpreted through three hypotheses: the exposure effect, reverse causality and capacity tension under conditions of overload. States such as Estonia, Denmark and Malta, with high pre-pandemic digital preparedness, maintained superior performance, while Romania, Bulgaria, Croatia and Hungary recorded notable post-pandemic accelerations through reactive digitalization measures. The conclusions emphasize the role of citizens as final users and accountability factors in digital governance.

As regards consistency with the literature, the results are in line with the perspective of crisis as a catalytic factor, according to which shocks accelerate long-term adaptation. Agostino, Arnaboldi and Lema (2021) confirm the role of COVID-19 as an accelerator of digital transformation in public service delivery. The strong effect of transparency aligns with theories of accountability and public trust. Wang and Ma (2022) show that digital interfaces increase user satisfaction and the evaluation of public services. The combination of positive and negative signals highlights the intrinsically multidimensional character of the quality of digital services, which combines accessibility, trust, efficiency and user experience.

Chapter 5. Governance quality, education and environmental performance

Chapter 5 extends the analytical framework of the dissertation toward the environmental dimension of public sector performance, addressing objectives O.14–O.16 through the analysis of the relationship between environmental performance, measured through carbon dioxide emissions per

capita, and the level of education together with the institutional quality of governance, in 43 states from the EU and G20 over the interval 1995–2020. The methodological framework combines panel regressions in several specifications with PCSE and Two-Step GMM for robustness and endogeneity control. The estimated models explain between 49.7% and 97.6% of the variation in emissions depending on the specification, confirming overall statistical relevance.

The first key result of the chapter concerns the effects of institutional variables in the PCSE estimation. In this specification, all variables reflecting institutional quality display a direct and positive relationship with the level of carbon dioxide emissions. Among the institutional quality indicators, only control of corruption (CCORR) is statistically significant, while government effectiveness (GOVEFF), regulatory quality (REGQ) and rule of law (RLAW) have positive but insignificant coefficients. This finding is discussed in relation to the conclusions of Ahmed et al. (2020), who showed that results are inconclusive regarding the link between institutional quality and environmental performance, and in contrast with Mavragani et al. (2016), who concluded that good governance increases environmental performance, the difference in conclusions being explained by methodological specification and by the economic structure of the states in the extended sample.

The second key result shows that the level of education, economic growth, fossil fuel energy consumption and the share of industry in GDP are associated with increasing carbon dioxide emissions in the EU and G20 sample, indicating a deterioration in environmental performance. The education index is positively associated with CO₂ emissions in all relevant specifications, namely LSDV, PCSE and GMM. The coefficient of education is 4.141 metric tons per capita in the FEM and LSDV models, significant at $p < 0.001$. This positive association is consistent with the findings of Eyuboglu and Uzar (2021), who demonstrated that education is positively associated with CO₂ emissions, arguing that emissions may increase along with the development of educational capacity through rising energy consumption. Gangadharan and Valenzuela (2001) and Hill and Magnani (2002) found that higher levels of education lead to an increase in the use of polluting technologies. The positive impact of economic performance on environmental degradation was confirmed by Azomahou et al. (2006), Aye and Edoja (2017), and Dauda et al. (2019). The results concerning industry are consistent with the estimate of Li and Lin (2015), who proved that industrialization increases CO₂ emissions.

The third key result, the most robust of the chapter, concerns renewable energy consumption, which is the only variable with a favorable and significant relationship with environmental performance in all reported specifications: Pooled OLS, REM, FEM, LSDV, PCSE and Two-Step GMM. A one-unit increase in renewable energy consumption reduces CO₂ emissions by 0.353 tons per capita in the GMM estimation, confirming the essential role of the energy transition. The robustness of this result is consistent with the findings of York and McGee (2017), who demonstrated that countries using a larger share of renewable energy resources have lower CO₂ emissions, with Silva et al. (2012), who showed that renewable energy significantly improves environmental performance, and with Gani (2021). The Two-Step GMM procedure controls for endogeneity and confirms the robustness of the renewable energy coefficient as a favorable predictor of environmental performance.

2. Integrated conclusions of the research

The transversal synthesis of the results obtained in the five chapters of the dissertation supports the general conclusion that differences in public sector performance among European Union member states are compatible with variations in institutional implementation capacity, especially in contexts of constraints and shocks. This conclusion is not based on a single method or a single indicator, but on the interpretative convergence of evidence produced through distinct methods, kept within their own measurement registers and interpreted within the limits of each method employed.

The first emerging principle is that the level of public resources does not, by itself, explain performance differences between states. DEA analysis demonstrates that states with high levels of public expenditure do not automatically position themselves on the relative efficiency frontier. The analysis in Chapter 2 shows that differences in economic well-being are better explained by institutional quality than by the volume of expenditure. The analysis in Chapter 5 confirms that the level of education does not automatically produce superior environmental performance in the absence of structural changes in the energy mix.

The second principle concerns the asymmetry of institutional vulnerability within the European Union. New member states are more affected by corruption as a factor eroding economic well-being, with a negative association of approximately EUR 631 per capita compared with EUR 165 in old member states, reflecting structural differences in institutional capacity that do not disappear automatically with accession to the EU or with the formal convergence of the legislative framework. The results suggest that interventions aimed at reducing corruption and strengthening governance may have higher comparative potential in NMS than in OMS.

The third principle concerns the role of external shocks as factors accelerating institutional change, conditional on pre-existing capacity. The COVID-19 pandemic generated a positive and significant differential effect on the digitalization of public services, but the magnitude of this effect depended on the level of structural digital preparedness prior to the crisis. The convergence of DEA scores in 2020 complements this interpretation: under crisis conditions, public administrations tend to mobilize more uniformly, temporarily reducing the dispersion of relative efficiency scores.

The fourth principle concerns the central role of the energy transition in improving environmental performance. In the sample of 43 EU and G20 states, renewable energy consumption is the only predictor with complete methodological robustness, significantly negative in all six reported specifications, while education, economic growth and governance produce specification-dependent effects. The results support the priority granted to the transition of energy sources within sustainability policies.

The unifying general conclusion is that all four deficits identified through the empirical analysis, the deficit of institutional integrity, the deficit of efficiency in the use of administrative resources, the deficit of digital capacity, and the difficulties of institutional coordination and implementation of energy transition policies in the environmental dimension, are expressions of the same transversal deficit: insufficient institutional capacity to transform resources, rules and public policy instruments into observable outcomes for citizens and for the economy.

The results obtained through panel data econometric methods, DEA benchmarking and Difference-in-Differences estimation converge toward the same interpretation at the level of the



institutional implementation mechanism, suggesting that performance differences between states are explained primarily not by the level of available resources, but by the capacity of public institutions to transform these resources into observable outcomes for citizens.

3. Scientific contributions

The main scientific contribution of this dissertation consists in building a unified and methodologically controlled comparative architecture that coherently connects four dimensions of public sector performance through the same transversal mechanism: institutional implementation capacity. In the existing literature, results obtained through panel data econometrics, DEA benchmarking and DiD identification are frequently juxtaposed without a strict delimitation of what each method measures. The dissertation reduces this ambiguity through a constant reading rule under which each result is interpreted within the limits of the method that produces it, while the convergences between chapters are discussed at the level of implementation rather than through the equivalence of indicators.

The second contribution consists in the argued response to three gaps identified in the literature. The first gap, relating to definition and measurement, is addressed through the clarification of inconsistencies in the operationalization of public sector performance. The second gap, concerning the integration of the institutional mechanism, is addressed through the proposal of institutional implementation capacity as a common linking element for all dimensions. The third gap, concerning methodological integration, is reduced through the construction of a comparative framework in which different methods are used in a complementary manner.

At the level of each chapter, the original contributions are clearly delimited. Chapter 1 provides a bibliometric grounding through the analysis of a corpus of 1,343 publications, identifying the peripheral positioning of the implementation dimension in the literature. Chapter 2 contributes to the literature on corruption and economic well-being in the EU through the systematic comparative analysis of NMS versus OMS, quantifying the difference in the impact of corruption between the two groups. Chapter 3 contributes through the construction of a measurement design in which strategic planning is operationalized as an input and citizens' satisfaction is explicitly included as an output of the DEA analysis. Chapter 4 contributes through the systematic application of the DiD method at the level of the entire EU27 for the evaluation of a common shock with differential impact. Chapter 5 contributes by extending an established model through the simultaneous introduction of four dimensions of governance quality and the education index for a panel of 43 states, with endogeneity control procedures through Two-Step GMM.

The practical contribution of the dissertation consists in translating empirical evidence into public policy implications calibrated to the identified mechanism and to the real institutional heterogeneity of the analyzed states. The recommendations are organized around the four pillars of institutional implementation capacity: strengthening institutional integrity and accountability, changing the paradigm of administrative evaluation from the volume of resources to their yield, treating digitalization as a structural investment, and anchoring sustainability policies in the energy transition.

An additional contribution of the research consists in the formulation of an integrative conceptual framework of public sector performance, in which the four analyzed dimensions, economic, managerial, digital and environmental, are interpreted through the same transversal mechanism of institutional implementation capacity. This conceptual scheme allows the coherent



interpretation of results obtained through different methods and provides an analytical framework for future comparative research on public sector performance.

4. Research relevance

The scientific relevance of the research lies in the way it rearranges the empirical evidence on European public sector performance into a comparative architecture with an explicit reading rule, so that four dimensions usually analyzed separately in the literature can be read within the same analytical logic. The dissertation demonstrates that controlled methodological integration is feasible and produces more nuanced recommendations than approaches that treat each dimension in isolation.

The relevance for public policies is differentiated by dimensions and calibrated to the specific profile of state groups. In the economic dimension, the quantification of the asymmetry in the impact of corruption, approximately EUR 631 per capita in NMS compared with EUR 165 in OMS, provides a direct numerical argument for prioritizing anti-corruption reforms in the new member states. Institutional reforms should not be treated exclusively as compliance objectives vis-à-vis European requirements, but as interventions that may support economic performance by strengthening rule of law, government effectiveness and regulatory quality.

In the managerial dimension, the benchmarking of relative efficiency provides concrete policy references for states that are not located on the efficiency frontier. Bulgaria, Estonia, Finland, Luxembourg and Malta offer different models of combining resources and strategic planning in order to transform inputs into outcomes perceived by citizens. The conclusion that the volume of expenditure does not guarantee positioning on the frontier has direct implications for performance-based budgeting processes and the review of public expenditure at the level of member states.

In the digital dimension, the results of Chapter 4 support the idea that the effective digitalization of public services should be treated as an investment in long-term administrative capacity. The identification of tension between increased use of e-government and delivery capacity signals the need for digitalization policies to explicitly include components for strengthening administrative processing capacity, rather than merely expanding access to digital channels. Transparency in service delivery appears as a factor strengthening citizens' trust and institutional accountability.

In the environmental dimension, the results of Chapter 5 support the idea that the sustainability agenda of European states and G20 economies requires prioritizing the energy transition as a central mechanism of climate policies. Educational policies aimed at increasing skill levels without modifying the energy structure of the economy do not automatically generate improvements in environmental performance. The finding that the relationship between governance and emissions is dependent on methodological specification implies that environmental policies must identify the concrete mechanisms through which governance connects to the energy structure and to the environmental behavior of economic actors.

Overall, the contribution of the dissertation to the literature on public sector performance lies in demonstrating the feasibility and usefulness of an integrated analytical architecture capable of producing convergent conclusions at the level of the implementation mechanism, while preserving the interpretative precision specific to each method employed. The formulated answer, namely that performance differences are compatible with variations in institutional implementation capacity, is a

contribution with both theoretical relevance for the literature on public sector performance and practical relevance for institutional reforms in the European Union.

Through the comparative character of the analyses conducted and the use of harmonized datasets at the European and international levels, the results of the dissertation provide useful analytical benchmarks for evaluating performance differences between states and for designing institutional reforms aimed at strengthening administrative capacity in the European Union.

At the applied level, the results of the dissertation support an integrated public policy agenda built around institutional implementation capacity. In the economic dimension, they indicate the need to strengthen accountability mechanisms, transparency of public decision-making and institutional control capacity, especially in the new member states. In the managerial dimension, the results support orienting administrative evaluation toward the yield of resource use, expanding benchmarking instruments and integrating citizens' satisfaction into planning and monitoring processes. In the digital dimension, the conclusions suggest treating digitalization as a structural investment in administrative capacity, transparency and data governance. In the environmental dimension, the results support giving priority to the energy transition and the need to correlate educational, economic and institutional policies with sustainability objectives.

5. Research limitations

The limitations of the present research are of three types, explicitly identified in each empirical chapter and coherent with the logic of the overall methodological architecture of the dissertation. Acknowledging them does not invalidate the conclusions, but delimits the conditions of validity of the results and indicates the directions in which the analysis may be extended in future research.

The first category concerns constraints related to the measurement of institutional quality and digitalization. The indicators used in the empirical chapters capture aggregate or perceived dimensions of these phenomena, but cannot directly cover the internal mechanisms through which institutions function or malfunction. Administrative procedures, day-to-day operational flows, staff selection practices or nepotism remain largely outside the field of observation of the indicators available at the comparative level. In the analysis of corruption and economic well-being, this limitation is reflected in the absence of direct measures of rent-seeking behavior, the model being extensible in future research through the introduction of moderating variables that would capture the institutional channel more explicitly.

In the chapter on the digitalization of public services, the comparability of DESI indicators across states may be influenced by differences in data reporting and in the administrative organization of digital services, while the absence of measures regarding user experience limits the capture of the qualitative dimension of access to services. In the efficiency analysis, the aggregation of input and output variables into composite indices reduces the visibility of the individual contribution of each indicator, while the high correlations among governance indicators used simultaneously may signal a certain informational redundancy, which requires caution in interpreting the contribution of each of them.

The second category of limitations derives from the comparative nature of efficiency analysis. The DEA method produces relative scores calculated with reference to the best performers in the sample, which means that the positioning of a state depends on the performance of the other states included in the analysis. This relativity is a structural property of the method and implies that results must be interpreted exclusively as comparative positions, not as absolute levels of administrative performance. In addition, the method does not allow the identification of internal causal mechanisms generating efficiency differences, which makes it necessary to complement quantitative benchmarking with institutional analyses or in-depth case studies. Furthermore, in the chapter dedicated to environmental performance, the absence of quantile regression estimates limits the possibility of analyzing whether the effects of independent variables differ across states with distinct emissions profiles.

The third category of limitations concerns the time interval and data coverage. Each chapter uses a sample and a period adapted to the nature of the analyzed phenomenon and to the identification conditions of the method employed: an extended time horizon for the relationships between corruption, governance and economic well-being, a pre-post shock window for the analysis of digitalization, a punctual comparison around the pandemic year for DEA analysis, and an extended panel for the long-term analysis of environmental performance. This variation does not reflect methodological inconsistency, but rather a design choice aligned with the nature of the phenomena



investigated, the coherence of the dissertation being ensured through the transversal mechanism of institutional implementation capacity. Nevertheless, no chapter fully covers post-pandemic developments, so that the long-term effects of the analyzed shocks remain only partially observable.

6. Future research directions

Future research directions derive directly from the identified limitations and from the questions left open at the end of each empirical chapter. They aim to extend the comparative framework developed in the dissertation and to deepen the institutional mechanisms that explain variations in public sector performance.

A first research direction concerns the deepening of the institutional mechanisms connecting governance quality with economic well-being. The analysis conducted in the dissertation measured the aggregate effects of corruption and governance indicators without being able to directly observe the internal administrative channels through which they operate. Future research could extend the set of institutional determinants toward directly observable variables, including nepotism and staff selection practices in the public sector, and could analyze the link between these phenomena and labor mobility, skilled emigration and the evolution of economic well-being, especially in the case of the new member states.

A second direction concerns the extension of the benchmarking framework for administrative efficiency. The DEA analysis conducted in the dissertation covers only two years and produces relative scores that do not allow the separation of transitory variations from structural changes. Extending the analysis over a longer time horizon, combined with the use of dynamic DEA extensions, would make it possible to trace efficiency trajectories over time and identify states that converge toward or diverge from the efficiency frontier in structural terms. Complementing benchmarking with panel models for the determinants of efficiency could transform the analysis from a comparative instrument into a tool of institutional diagnosis.

A third direction concerns the deepening of the analysis of the digital transformation of public services. The Difference-in-Differences model used in the dissertation captures the differential effect of the pandemic shock, but cannot evaluate the perceived quality of digital services from the users' perspective. The integration of indicators regarding user experience, accessibility and perceived satisfaction would complement the quantitative analysis with a qualitative dimension essential for evaluating the real impact of digitalization. Extending comparisons to institutional contexts outside the European Union would make it possible to test the generalizability of the identified relationships.

A fourth direction aims to refine the analysis of the relationship between education, governance and environmental performance. The introduction of quantile regression estimates would allow the examination of differences between states with distinct emissions profiles, while the use of mediation models could clarify the mechanisms through which human capital and institutional quality influence environmental performance. Extending the data series after 2020 would also allow the analysis of the longer-term effects of pandemic and energy shocks on the relationship between economic development and environmental performance.

List of published papers

1. Dincă, G., **Bărbuță (Matei), M.**, Dinca, D. (2025). *Crisis as a Catalyst: Difference-in-Differences Evidence on Digital Public Service Transformation in the European Union*. **Administrative Sciences** 2025, 15(10), p. 393. Available at: <https://doi.org/10.3390/admsci15100393>
2. **Bărbuță (Matei) M.** (2025). *Assessing the efficiency of public institutions in the EU through DEA: Effects of strategic planning and the COVID-19 pandemic*. **The Journal Contemporary Economy**, Vol. 10, Issue 1/2025, p.79. Available at: http://www.revec.ro/images/images_site/articole/article_06f6ff570c177b204378568d6688eed7.pdf
3. **Bărbuță (Matei) M.** (2024). *Can rent-seeking behavior and corruption impact the economic wealth of European Union member states? . „Ovidius University Annals. Economic Sciences” Series*, Vol. XXIV, Nr. 2/2024. Available at: <https://stec.univ-ovidius.ro/html/anale/RO/2024i2/Section%205/1.pdf>
4. Dincă, G., **Bărbuță, M.**, Negri, C. , Dincă, D. & Model, L.S. (2022). *The impact of governance quality and educational level on environmental performance*. **Frontiers in Environmental Science**, 10, p. 950683. Available at: <https://www.frontiersin.org/journals/environmental-science/articles/10.3389/fenvs.2022.950683/full>
5. Dincă, G., Dincă, M.S., Negri, C., **Bărbuță, M.**, (2021). *The Impact of Corruption and Rent-Seeking Behavior upon Economic Wealth in the European Union from a Public Choice Approach*. **Sustainability**, 13, p. 6870. Available at: <https://www.mdpi.com/2071-1050/13/12/6870>

List of conference participations

1. The 1st edition of the **International Conference "NEO Entrepreneurship Conference"**, June 3th-7th, 2025. Suceava, România. **Bărbuță (Matei) M.** (2025). *Exploring the digital transformation in public administration triggered by the COVID-19 pandemic: A comparative analysis employing the Difference-in-Differences method across European Union member states.* Available at: http://conferinta.feaa.usv.ro/public/conferences/1/schedConfs/14/program-en_US.pdf
2. The 10th edition of the **International Conference "Accounting and Finance – Universal languages of business (AFISC)"**, 11th of April, 2025. Pitești, România. **Bărbuță (Matei) M.** (2025). *Evaluating the efficiency of public institutions in the European Union through Data Envelopment Analysis: A study on the impact of strategic planning.* Available at: <https://www.univcb.ro/storage/app/media/brosura-conferinta-AFISC2025.pdf>
3. The 13rd edition of the **International Conference "Global economy under crisis"**, 11-12 th of December, 2024. Constanța, România. **Bărbuță (Matei) M.** (2024). *Can rent-seeking behavior and corruption impact the economic wealth of European Union member states?* Available at: https://stec.univ-ovidius.ro/wp-content/uploads/2024/09/GEUC_2024_Full_program.pdf