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SUSTAINABLE SOCIAL CHANGE
SOCIAL PROCESSES AND ADMINISTRATIVE INSTRUMENTS
- SUMMARY-

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SUMMARY

In recent decades, the issue of sustainability has become increasingly important in international, european and national regulations, and it also represents the concern of organizations to implement measures aimed at integrating this concept in the way they are organized and operate.

New sciences challenge the existing paradigm and the way organizations are structured and behave. According to the 2030 Sustainable Development Strategy[1], Romania needs a change in the current development paradigm to meet the complex challenges of the current century.

This thesis aims to embrace various approaches in which organizations could be transformed using ideas drawn from the science of complexity, the science of sustainability, as well as the private and non-governmental sector.

The first steps in accomplishing the doctoral thesis were to identify, organize and analyze the theoretical framework that includes some key concepts of this research, such as: social change, sustainability, leadership, reform, adaptation, social processes and complexity.

In this scientific approach we started from the knowledge of social change from sociological, biological and complexity theories to the knowledge of sustainable change. Change is a product of specific historical processes and cultural practices. The definition of social change has undergone changes in terms of the types of change addressed by theories. Social change involves the transformation of society through its cultural, social, political and economic institutions. This concept is also defined as a significant transformation over time of a society by changing the rules, values, statuses, social roles, as well as changes in technology or the physical environment of society.

We considered that a revitalization of change analysis in this research is important for understanding today's society with its subsystems - with special emphasis on the administrative - for the development of social processes and tools for organizational sustainability in the context of an unpredictable future.

The objective of the thesis is to contribute to the knowledge of the way in which sustainability must be integrated in the organizational culture, this representing a necessity that contributes especially to the development of public administration, but also to the development of society in general. We aim to highlight through this paper the strategic role that public administration plays in supporting and maintaining the balance between systems.

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[1] Strategia pentru Dezvoltare Durabilă 2030, available at: https://www.edu.ro/sites/default/files/Strategia-nationala-pentru-dezvoltarea-durabila-a-Rom%C3%A2niei-2030.pdf, accessed in 15.07.2019.

Romanian specialized literature can be improved by treating the administrative system through the prism of sustainability science and to be stimulated by increasing the interest of researchers and practitioners in creating future theories in this regard. One of the aims of this paper is to build a bridge between the worlds of science and organizations and to contribute to the development of future debates on the science of sustainability.

This paper is divided into five chapters that follow an evolution of the stages of research and can be summarized as follows:

Chapter 1 *"Theoretical approaches to social change"* aims to establish the connection between administrative and sociological sciences, starting from the idea that public administration is an open system that interacts with the environment, being influenced and influencing in return. Public administration is an important subsystem of the global system, which involves a close link between changes in society and changes in organizations belonging to the administrative system. Thus, the social context in which public administration has developed has a special relevance, which involves the identification of both sociological theories dedicated to change and the approach of complexity theories on organizational change.

During the chapter we present the evolution of sociological theories and complexity in knowing the social context in which the administrative system was developed to demonstrate that intervention in one system has an impact on other systems. We focus on several theories, such as: theories of linear evolution vs. cyclical theories, evolutionary theories, structural-functionalist theories, conflict theories and modernist theories.

Chapter I contains a part that is dedicated to sociology and the imprint it has left on organizational development, this introduction to social change being necessary to know the past, anticipate and change the future. Social change is theoretically debated in the context of the existence of two paradigms, the systemic and procedural approach to highlight the importance of changing structure and processes in public administration. The chapter continues with an introduction to the science of complexity which is of particular importance in the study of social change and sustainability because it provides explanations of how complex systems work, such as public administration. The science of sustainability has as object of study complex systems, so it is based on the theory of complexity.

The second chapter, entitled *Sustainability - conceptual framework and sphere of activity*, we approach the science of sustainability through its two branches - sustainability and sustainable development, we follow the evolution of the concept in terms of regulations and policies adopted, we present the views of researchers regarding the development of sustainability over time in different parts of the world.

At the end of the chapter we conclude with a short section in which we propose the integration of sustainability in the general principles applicable to public administration. According to the Administrative Code[2], the general principles applicable to public administration are: the principle of legality, the principle of equality, the principle of transparency, the principle of proportionality, the principle of satisfying the public interest, the principle of impartiality, the principle of continuity and the principle of adaptability. We believe that a new principle should be added to guide the work of public administration, namely the principle of *sustainability*, in which public authorities and institutions, as well as their staff, have an obligation to manage efficently and responsible the human, natural and financial resources of society, without compromising present and future generations.

We consider it imperative to introduce this principle in order to increase the responsibility of the public administration towards the future of the next generations, in order not to endanger any type of capital, namely, the natural, intellectual, cultural, material and financial one. In this case, sustainability involves a long-term commitment of public administration to citizens and the creation of a sustainable and balanced relationship between the subsystems of society. Therefore, the main intention of adopting the principle of sustainability is to widen the perspective of the public administration approach.

In the third chapter, entitled **Sustainable Social Change**, two organizational approaches are analyzed that focus on creating an integrated framework for change, one of which is adapted to the Kotter model.

The general framework of sustainable change is presented by pointing out some relevant steps. A sustainability planning process begins by declaring a vision and continues with measurable objectives, specific strategies or action plans, and tactics[3]. Measurement is a key element of sustainability. Organizations with a vision of sustainable services and sustainable operations need more than a vision, they need tools to understand where they are, how far or how close they are to their goals and whether they are moving in the right direction. Sustainability indicators are used by organizations to provide a framework for deciding where to focus their efforts, to motivate people to improve the process, to demonstrate progress in employee performance or social responsibility. Measuring sustainability indicators provides a way to assess how public administration is making progress on sustainability over time.

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[2] Ordonanța de Urgență nr. 57 din 3 iulie 2019 privind Codul Administrativ, publicat în Monitorul Oficial nr. 555 din 5 Iulie 2019, available at: http://www.cdep.ro/pls/legis/legis_pck.htp_act?ida=159134, accessed in 03.05.2020.
[3] Margaret Robertson, *Sustainability. Principles and Practice*, A doua ediție, Publicată de Routledge, New York, 2017, *op.cit.*, p. 308.

Scenario planning is part of the complete systemic cognitive process, which strongly interconnects discovery with action [4]. When driven from a systemic development perspective, planning the sceanrio has the capacity to be a systemic social process of reflective, experiential, and transformative learning for informed consensual strategic plans and actions to address the contingent potential future.

An important part of this scientific approach is to identify and analize two large-scale change tools resulting in a model of large-scale change tool for public administration reform that represents - a participatory strategic change model based on an democratic approach. In the right environment, large-scale change interventions can contribute to the process of sustainable change being based on innovative and complex approaches, as well as high-level operational and political support.

Chapter IV, *Social processes and administrative tools for sustainable social change* contains the most relevant processes for the current paper, namely leadership, reform and adaptation of public administration that lead to sustainable change and three administrative tools needed to make progress in changing the public administration.

Chapter V, entitled *Complementarity Analysis of Sustainable Development and Public Administration Strengthening Strategies*, identifies the objectives of three strategies. The complementarity analysis presents the contribution of each to the development and change of public administration and the key concepts within each. In this chapter, we highlight the strategic directions of change in public administration at the national level.

The thesis addresses 3 main research directions: sustainable change, reform - as an essential social process in public administration and the need for tools in sustainable change of public administration.

According to the professional literature, the analysis of sustainability started from ecology as a solution to solve environmental problems. At present, sustainability is widely used in all sectors and aspects of organizational life, finding under this "aegis" countless actions, strategies, policies, etc.

The concept is not only an ecological principle but also a social one, which refers to balance, equity and social justice. It is usually reflected in processes and actions, through which companies and their organizations try to improve their performance, use resources efficiently and maintain a balance so as not to reduce the quality of life. It is part of the category of key concepts, such as freedom, equality and democracy, which is subject to ongoing scientific debates regarding the

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[4] Richard Bawden, Michael Reichenbach, „Learning by Experiencing: Systemics, Futures Thinking, and Scenarios" in Sustainable Development, 2010, pp. 95-105.

definition and area of action. There is a universally accepted definition of sustainable development [5], such as that of the Brundtland Commission, but there are different views on the concept of sustainability and how it can be achieved.

From the analysis of the literature, the current meaning of sustainability suffers from divergent ethical inflections in existing policies and practices [6]. It was noted that the idea of sustainable development seems to be increasingly linked to political agendas, raising concerns about the soundness of its analytical basis and the scientific foundations of the concept remaining unclear to many. Most debates share common concerns but differ greatly in the emphasis on what is to be developed, what is to be sustained, what should be the relationship between developed and sustained and for how long the relationship should take place[7].

The science of sustainability aims to identify the interactions between global social and human systems, as well as to understand the mechanism that led to the degradation of these systems and the concomitant risks to the security and comfort of human beings[8]. This is a systemic problem because improving one part of the system can lead to damage to another part.[9].

According to the definitions identified by the authors Sala and its collaborators [10], the science of sustainability represents:

• „Advanced form of complex system analysis aimed at improving the understanding of the associated human-environment conditions through advanced descriptive analytical tools;

• Transformation agenda;

• A holistic approach to problem solving being solution-oriented, based on a systemic understanding of contemporary phenomena, able to capitalize on and integrate sectoral knowledge;

[5] International Union for Conservation of Nature and Natural Resources (IUCN), „World Conservation Strategy: Living Resource Conservation for Sustainable Development", 1980, available at: https://portals.iucn.org/library/efiles/documents/WCS-004.pdf , accessed in 15.06.2020.

[6] Timothy W. Luke, „Working to Attain More Than "Actually Existing Sustainability"", Department of Political Science Virginia Polytechnic Institute and State University, Blacksburg, VA, p. 2, available at: https://polisci.acadiau.ca/tl_files/sites/polisci/resources/Documents/Sydney%20Taylor%20Memorial%20Lecture.pdf, accessed in 10.05.2017.

[7] William C. Clark, Paul J. Crutzen, and Hans J. Schellnhuber, „Science for Global Sustainability: Toward a New Paradigm", Science, Environment and Development Group, Center for International Development (CID) at Harvard University, CID Working Paper No. 120, 2005; also published as Ch. 1 in *Earth System Analysis for Sustainability*, Edited by Hans Joachim Schellnhuber, Paul J. Crutzen, William C. Clark, Martin Claussen, and Hermann Held, MIT Press, pag. 16-17.

[8] Jeffrey I. Steinfeld, Takashi Mino, „Education for Sustainable Development: the Challenge of Trans-disciplinarity", Sustain.Sci. 4: 1-2, Springer, 2009, available at: https://core.ac.uk/download/pdf/191573054.pdf, accessed in 17.01.2020.

[9] Raymond Murphy, „Sustainability: A Wicked Problem", Symposium/Reassessing Sustainability, *Sociologica* no 2, 2012, p. 3, available at: https://www.rivisteweb.it, accessed in 10.03.2017.

[10] Serenella Sala, Biagio Ciuffo, Peter Nijkamp, „A Meta-framework for Sustainability Assessment" (Research Memorandum 2013-2016), Vrije Universiteit Amsterdam, 2013, p. 4, available at: https://research.vu.nl/ws/portalfiles/portal/845008/2013-16.pdf, accessed in 18.02.2019.

• Precautionary approach, and accepting and implementing such an approach requires a framework to get the agreement of all sectors of society."

Characteristic of the science of sustainability is that:

- focuses on dynamic interactions between nature and society;
- requires an integrated understanding of complex problems;
- requires a systems-based interdisciplinary approach;
- searches for real solutions to sustainability problems.

• In recent decades, the large number of events, initiatives and publications have contributed to an increase in public attention to the concepts of sustainable development and sustainability [11]. A global analysis of them demonstrates the rising levels of public discourse on sustainability and indicates that "sustainability" has become a more widely used concept than "sustainable development", which may mean a shift in researchers' interest from sustainable development to the concept of sustainability, or the use of the name as an attractive concept that captures the public's attention. From 1970 to the present days, the meanings and uses of sustainability have changed in terms of the social forces that have acted in all corners of societies [12].

If sustainable development involves development that promotes progress then sustainability itself can be seen less as a state or condition and more as a direction or thinking for development activities. Sustainability is defined as a political, ethical and legal necessity [13] and refers primarily to the basic conditions of humanity and not to any aspect of economic and social policy in general [14]. It seems to be in the same category as other great goals of the last century - goals that members of society think and care more about but don't have the solution to achieve [15].

Organizational sustainability is a societal goal for the beginning of the 21st century, which must be considered in the context of social change. Current approaches of sustainability focus not only on environmental protection, as we see in the vast professional literature, but also on broader social objectives, such as those related to social justice, equitable distribution and efficient use of resources. Sustainability involves a profound change in issues related to ethics, social responsibility and the redesign of organizational culture, values, structures, processes and organizational objectives. In most

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[11] Ralf Barkemeyer, Diane Holt, Lutz Preuss et.al., „What Happened to the Development in 'Sustainable Development'? Business Guidelines Two Decades After Brundtland", *Sustainable Development*, 22(1): 15-32, 2014, p. 4, available at: https://core.ac.uk/download/pdf/74370008.pdf, accessed in 08.05.2018.

[12] Timothy W. Luke, „Working to Attain More Than "Actually Existing Sustainability"", *op.cit.*, p. 8.

[13] Felix Ekardt, Susanne Stoll-Kleemann, *Environmental Humanities: Transformation, Governance, Ethics, Law,* Springer, 2020, p.1.

[14] *Ibidem*, pp. 28-29.

[15] William C. Clark, Paul J. Crutzen, and Hans J. Schellnhuber, „Science for Global Sustainability: Toward a New Paradigm", *op.cit.*, p. 16-17.

cases, the extent of the change needed to achieve sustainability suggests a transformation of the system[16].

Sustainability involves the balanced assurance of the fundamental means (material, moral, normative) inter and intra generational for the achievement of the progress [17], as well as the necessity of some conditions of evolution. The concept can play "a significant role in administrative planning, through long-term planning, intergenerational equity, risk reduction and resource conservation"[18]. The topic is also discussed as a new objective for public administration based on three fundamental systems (environmental, economic and social), with „the challenge of supporting each system, while maintaining an appropriate balance between them."[19].

The sustainable development in the Romanian public administration aims to prioritize the public interest by providing quality public services in accordance with European standards. Public administration plays a key role in the process of sustainable development of society, by identifying concrete problems and determining practical ways to solve them. Understanding the importance of sustainability in public administration in Romania could lead to considerable administrative performance, so we emphasize the need to integrate sustainability into the general principles applicable to public administration.

Sustainable social change refers in this paper to the widespread adoption of social processes and tools in public administration that are supported by an ecosystem of actors. Sustainability requires collaboration between actors and the institutionalization of change in routine systems[20]. The public administration needs an integrated decision-making framework [21]. Public authorities and institutions should adopt or adapt the decision-making framework with a particular focus on [22]: iterative improvements, multi-level governance, network governance, stakeholder involvement, mutual learning and trust, adaptive management, creative approach and communication strategy.

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[16] Charles L. Redman, „Should Sustainability and Resilience be Combined or Remain Distinct Pursuits?", *Ecology and Society,* Volume 19, No. 2, Art. 37, 2014, available at: http://www.ecologyandsociety.org/vol19/iss2/art37/, accessed in 11.07.2015.

[17] Tatiana Şaptefraţi, „Corelaţia dintre guvernarea eficientă şi dezvoltarea umană durabilă". Tezele conferinţei internaţionale ştiinţifico-practice din 18 mai 2005, „Academia de Administrare Publică pentru o guvernare transparentă, responsabilă şi democratică", Chişinău, 2005.

[18] Deniz Leuenberger, „Sustainable Development in Public Administration", *Public Works Management & Policy,* 10(3), 2006, pp.195 – 201.

[19] Daniel J. Fiorino, „Sustainability as a Conceptual Focus for Public Administration", *Public Administration Review*, 70(1), 2010, pp. 78–88, available at: https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.662.8450&rep=rep1&type=pdf, accessed in 03.05.2019.

[20] L. Woltering, Kate Fehlenberg, Bruno Gerard et.al., „Scaling – from Reaching Many to Sustainable Systems Change at Scale: A Critical Shift in Mindset", ScienceDirect, *Agricultural Systems*, No. 176, 2019, p. 4, available at: https://www.sciencedirect.com/science/article/pii/S0308521X18314392, accessed in 13.02.2021.

[21] National Research Council of the National Academies, *Sustainability for the Nation..., op.cit.*, p. 4.

[22] *Ibidem*, p. 8.

Another organizational approach to sustainable change is adapted from John Kotter's model, which proposes an eight-step model for lasting change, based on a review of private sector experience. Professor Kotter proposes eight steps that contribute to successful change on a large scale[23]: driving the urgency of change, creating a guidance team, creating vision and strategies, effectively communicating vision and strategies, removing barriers to action, achieving short-term goals, continuing the change until the final goals are achieved and creating a new culture for the new behavior to remain.

The approach to large-scale change is a continuous evolution due to the challenges we constantly face, requiring a complete set of tools to effectively lead its initiatives. The thesis addresses, as mentioned above, two large-scale change tools, a tool implemented by the National Health Service[24] in the UK and a tool proposed by the author of "Building an evidence based practical guide to Large Scale Interventions. Towards sustainable organizational change with the whole system ", Tonnie van der Zouwen**.

The first tool is a guide to sustainable change that involves mobilizing a large number of individuals, groups and organizations towards a vision of a new fundamental state through key themes that can make a big difference, by changing power and more distributed leadership, by engaging comprehensive and active stakeholder engagement and mutually reinforcing changes in multiple systems and processes. The guide for large-scale change that we have adapted to the Romanian public administration proposes a release of organizational boundaries and their organization at the national level that would lead to new ways of working and a path to a different government. The guide to large-scale change identifies 10 key principles in the literature that can contribute to the success of change and that we are trying to adapt to the field of administrative sciences.

The complex lens system of large-scale change in complex systems, such as public administration, requires integrated changes in structures, processes and models. Change is widespread in multiple organizations, profoundly changing people's current mindsets and ways of thinking, has a general impact on what people do in the workplace, and requires coordinated changes in multiple systems. So we are talking about efforts for social change that affect a large number of people, require change everywhere and challenge current mental patterns.

The concepts used in the guide are inspired by the thinking of social movements, organizational development, management, strategic change and change management. The organizational framework

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[23] John P. Kotter, Dan S. Cohen, *The Heart of Change. Real-Life Stories of How People Change Their Organizations*, Publicată de Harvard Business School, Boston, Massachusetts, 2002, pp. 2-5.
[24] NHS England, „Leading Large Scale Change: A Practical Guide", available at: https://www.england.nhs.uk/wp-content/uploads/2017/09/practical-guide-large-scale-change-april-2018-smll.pdf, accessed in 12.02.2019.

brings together three critical elements for making change on a large scale[25]: understanding change on a large scale, creating a model for change, and developing or improving methods, approaches, and tools. If we want change to be transformative, we need to consider the structure of public administration, processes and patterns of behavior[26].

The change model proposed in the instrument supports an integrated framework for any change program that seeks to achieve transformative and sustainable change. Some elements that should be taken into account in driving sustainable change and that could help to organize an approach to create an environment in which change programs can bring real improvement are highlighted: a common shared goal, the creation of a distributed leadership, adaptation and innovation, use of improvement tools, project and performance management, measurement and evaluation, change agents, motivation and mobilization.

The "Large scale interventions" tool proposed by Tonnie van der Zouwen involves stakeholders in a collective process of change and learning addressing various issues in organizations or communities, to change the whole system, as a final result. The author of the book defines sustainable change as "developing the capacity to change" and establishing sustainable effects, design and conditions are not easy to achieve for such a change. Sustainable change can be seen as an effect on collective learning and the capacity of building changes. For the process of large-scale change, the basic principles underlying the characteristics are: systems thinking, stakeholder participation, learning actions in diversity and multiplicity, understanding the whole and seeking common ground[27].

The notion of "large-scale" addresses both the scale of the "whole system", with a large number of people, and analyzing the processes of change in their wider context in time and space. Large-scale intervention is a complex approach to change, determined by the multiplicity of disciplines in which it is rooted and the diversity of methods used to work with the whole system. The paper focuses on organizational change and the potential for methods to establish sustainable effects.

Both tools analyzed are part of a wider family of participatory approaches used in change processes, with various working methods with large groups that share some basic principles. Interventions in large groups are seen at the beginning of the 21st century as methods of organizational change that more appropriately address the complexity, unpredictability associated

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[25] NHS England, „Leading Large Scale Change: A Practical Guide", 2018, p. 13, available at:
https://www.england.nhs.uk/wp-content/uploads/2017/09/practical-guide-large-scale-change-april-2018-smll.pdf,
accessed in 12.02.2019.
[26] *Ibidem*, p. 62.
[27] Tonnie van der Zouwen, *Building an evidence based practical guide to Large Scale Interventions. Towards sustainable organizational change with the whole system*, Eburon Academic Publishers, Delft, 2011, p. 70, available at:
https://www.researchgate.net/publication/259639288_Building_an_evidence_based_guide_to_Large_Scale_Interventions_Towards_sustainable_organisational_change_with_the_whole_system, accessed in 05.12.2019.

with current organizations. These interventions are presented as a means to facilitate organizational change from the perspective of complexity science and to generate radical changes through self-organization[28].

The two tools, Large-scale Interventions and Large-Scale Change make concrete references to sustainable social change, create a more comprehensive picture of the central topic of the thesis and can underpin a model of sustainable change in public administration. Following the comparative analysis of the two large-scale instruments mentioned, the analysis of the literature used in the doctoral thesis and the use of the interview as a method of scientific research, we developed a model of large-scale change tool for public administration reform, this social process being a vector for the sustainable change of the public administration. The tool for large-scale reform is useful for leaders, experts, members of public, private or non-governmental organizations to consider the steps needed to achieve sustainable change. The aim of the model is to provide an overview of the preparation of a large-scale reform.

The change model addresses sustainability in large-scale change, organizational framework, preparation and developing the capacity for change, intervention with organization members, distributed leadership, conceptualization of different approaches to change, large group interventions, creating the conditions for large-scale reform , assessing large-scale reforms, factors influencing large-scale change and mentioning some arguments for the use of large-scale instruments.

The processes studied for this paper are leadership, reform and adaptation in public administration because they lead to sustainable change. Leadership offers a new understanding of managing processes in public administration, reform is a vector of sustainable change and a condition for Romania's progress, and adaptation - is a process of managing the uncertainties and complexities facing public administration today and in the future.

The socio-efficiency and performance of the public administration represent the desideratum of achieving sustainability and leadership has a major importance in setting the directions for their achievement. Public administration is a complex system that needs leaders to manage complexity. The management of such complexity involves developing mechanism that are adapted to the new conditions of the information age. Overcoming the complexities inherent in global challenges depends on effective leadership and the ability to sustain it[29]. Leadership is one of the key themes in organizations' progress towards sustainability.

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[28] Michael J. Arena, "Understanding Large Group Intervention Processes: A Complexity Theory Perspective", *op.cit.,* p. 49.
[29] Isabel Cabeza-Erikson, Kimberly Edwards, Theo Van Brabant, „Development of Leadership Capacities as a Strategic Factor for Sustainability", *op.cit.*, p. 12.

The second process approached in the thesis and a very important one is the reform in public administration. Public administration reform has involved large-scale changes, with social impact, according to the dominant governance models of the time. This is a structured and conscious process of producing change regardless of its magnitude.

A fundamental change in the basic model of public administration that shaped these reforms was characterized by the following paradigms [30]:

- The traditional organizational model that prevailed for most of the twentieth century is described as the Weberian bureaucracy, a legalistic, monolithic, and hierarchical administration responsible for all aspects of both policy-making and public service delivery.

- The second doctrine that has been called the *New Public Management* (NPM) has come to the fore since the 1980s, involving a rethinking of the role and size of the state, the import of private sectoral disciplines and quasi-market mechanisms to try to make "business-like" bureaucracy and therefore more efficient.

In practice, these two models of public administration have intertwined, so that the following descriptions are idealized and simplified caricatures for the purpose of presentation, based on their key characteristics.

The emergence of hybrid forms of public management based on elements of the three approaches is presented as an inevitable consequence of changes in the global environment and complex policy issues [31]. Since 2000, there has been a visible trend towards an emerging model called *"New Public Service"*, *"New Public Government"* or *"Post-New Public Management"*.

Reforms can be thought of in a planned and systematic way for the future, thus being proactive, but they can also respond to events over which they exercise little or no control and try to find solutions to existing problems by responding reactively. Public administration reforms are complex, they consume time in order to produce results and demonstrate their benefits and are not without risks, but they are also essential for the implementation of reforms in other sectors and for the implementation of important commitments made at European and international level.

Public administration reform is a broad concept, which includes all aspects of public sector organization, including: the general "architecture" of ministries and agencies, local organizations and

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[30] European Commission, „The Quality of Public Administration "Toolbox". Theme 9: Public Administration Reform – Making Positive Change Happen", Publicat de Office of the European Union, 2017, p. 3.
[31] Mark Robinson, „From Old Public Administration to the New Public Service. Implications for Public Sector Reform in Developing Countries", UNDP, Global Centre for Public Service Excellence, 2015, p. 4, available at: https://www.undp.org, accessed in 3.03.2019.

institutions, systems, structures, processes, motivations, and how to their supervision and regular adaptation of the system. According to the Public Administration Strengthening Strategy 2014-2020, "the revision of the public administration structure, corroborated with the coherent distribution of competencies between central and local public administration, is an important pillar of public administration reform, thus ensuring the necessary premises to strengthen the capacity of local public administration authorities"[32]. Emphasis is placed on strengthening institutional capacity, efficiency of public administration and public services at national, regional and local level.

The third process developed in the thesis is the adaptation of public administration. The adaptation is considered a characteristic of the systems in general, respectively of the administrative system studied in the present paper, meant to obtain the best possible performances. Article 13 of the Administrative Code is one of the general principles applicable to public administration and the principle of adaptability, which refers to the obligation of the authorities and institutions of the administration to meet the needs of society[33].

In times of turbulence and uncertainty, the public administration will often be forced to respond in adaptive ways to threats and opportunities that will arise through unusual, extreme and discontinuous events. Improving the capacity of the administration to develop adaptive schemes and generate complex responses to them contributes to the development of sustainable authorities and institutions. In special situations, such as pandemics, natural disasters, climate change, etc. involving systems adaptation, collaborative approaches are needed for good coordination of authorities. Researchers have noticed over time that adaptability is important for institutions to maintain their relevance and effectiveness in the face of changing external conditions[34]. Adaptation is the main concern in the research of complex socio-ecological systems and institutional adaptation is a necessary condition for the robustness of social and ecological systems.

The establishment of administrative instruments was necessary to know the levers of sustainable change in public administration. In the Sustainable Development Strategies, the reform programs emphasize the importance of refining and developing tools for changing or improving various aspects of public administration.

The paper addresses three administrative tools for change: Blockchain technology, a European tool for improving environmental performance, audit of public administration performance, and key

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[32]Strategia de consolidare a administrației publice 2014-2020, p. 24, available at: http://www.dpfbl.mdrap.ro/documents/strategia_administratiei_publice/Strategia_pentru_consolidarea_administratiei_publice_2014-2020.pdf, accessed in 16.03.2017.
[33] Ordonanța de Urgență nr. 57 din 3 iulie 2019 privind Codul Administrativ, Publicat în Monitorul Oficial nr. 555 din 5 Iulie 2019, available at: http://www.cdep.ro/pls/legis/legis_pck.htp_act?ida=159134, accessed in 05.11.2019.
[34] Kirk Emerson, Andrea K. Gerlak, Adaptation in Collaborative Governance Regimes, *Environmental Management,* 54:768-781, 2004, p. 768.

performance indicators. The identified administrative tools are debated at the level of the European Union states, some of them more recently appeared like the new technologies, others being better known as use in certain fields.

Blockchain technology is analyzed as a tool for interoperability and data management in public administration. The application of Blockchain technology in public sector management could lead to the construction of more efficient and equitable systems in welfare management and service delivery. Given the sustainability of public administration, its future goes beyond the simple process of providing public services, through the need to use tools such as Blockchain technology and other new technologies that will be developed later. The use of new technologies will help to overcome the limitations of current administrative services and will contribute to the supply of sustainable public services to people[35].

The European Eco-Management and Audit Scheme (EMAS) represents a necessity for public administration to contribute to the integration of sustainability into the organizational culture of public authorities and institutions. Key Performance Indicators (KPIs) are indicators of progress that contribute to strategic and operational improvement and create an analytical basis for decision-making.

As future research, we aim to identify and analyze indicators for sustainable change in public administration, as well as to conduct a deeper analysis of national reform programs.

General Conclusions

Scientific knowledge of public administration has made it possible to understand the way it operates in society, in order to improve the administrative system and meet the needs of citizens to improve living conditions. Knowledge of public administration as an object of scientific research has consisted in the use of several research methods, such as: deductive, analytical and historical method. They contributed to the formation of a proper image of the object of knowledge.

We used the following means and research tools: analysis, synthesis, comparison, deduction and generalization to achieve the objectives set by the thesis. The investigative techniques used consisted in studying the documents - elaboration of bibliographic studies necessary for researching

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[35] Seunghwan Myeong, Yuseok Jung, „Administrative Reforms in the Fourth Industrial Revolution: The Case of Blockchain Use", *Sustainability - Open Access Journal*, 11(14), 2019, p. 4, available at: https://www.mdpi.com/2071-1050/11/14/3971, accessed in 01.03.2020.

the concepts established by the objectives of the paper, direct observation - for qualitative and quantitative analysis of the activity in public authorities and institutions, interview method - for studying sustainable change from other researchers and practitioners.

The use of the systemic approach in exploring public administration has led to the development of concepts with a significant role in knowing the subject, revealing interdependencies, establishing relationships between concepts and developing an overview. The study of the science of administration included only the analysis of public administration with an emphasis on administrative capacity, thus limiting the scope of our interests.

The complexity of the administrative phenomenon involved following the links with other disciplines in different sciences, the science of administration having an interdisciplinary character, so the study of sociological, organizational and complexity theories was important in the present study to determine the factors that contributed to changing structure, processes and the role of public administration throughout history and which also leave their mark on the present.

The beginning of the study of social change started from the analysis of sociology, the non-profit sector and international documents that use this concept from a social point of view - demographic, cultural, structural and ecological, to know the social context in which public administration has developed and it also works to create connections with it. The dynamics of social change produces a series of effects on the social system and members of society. It takes into consideration two different situations: the change of the whole system or the change within the system.

The definitions found in the professional literature on social change were of great diversity because they have as their object - social phenomena, social processes, with various facets and dimensions. The concept is studied in two major paradigms: systemic and procedural, which are associated with sociological theories that embrace the appropriate vision, emphasizing the role of social structure and processes in change.

The sociological theories studied were the basis for changes in society and its subsystems, including in public administration. Studying change is important because societies are constantly changing, in other words, social change is ubiquitous. Knowledge of the history and sciences that have been involved in the evolution of systems is fundamental to reporting to the previous context and trying to anticipate the challenges of the future.

The analysis of the science of complexity has contributed to the understanding the patterns of relationships between systems, the way they organize themselves, here of course taking into account the understanding of public administration which is a complex adaptive system. The characteristics of complex adaptive systems are relevant to approach change in a sustainable way. By incorporating

ideas and concepts from this science we have developed our understanding of the functioning and organization of public administration along with other systems. To date, the concepts and ideas of complexity theorists have not been widely used in scientific research in public administration, which has had little influence on public administration theories. Through this paper we wanted to highlight the need and importance of studying public administration from the perspective of the science of complexity.

The concept of sustainability was introduced in the doctoral thesis due to its importance for the progress of public administration, for directing it towards sustainable thinking and for joining the joint global effort to balance the pillars of sustainability. Focusing on learning in the public sector in general and in public administration in particular underpins sustainable change with a positive social impact.

In defining sustainability we found several definitions given by researchers, there were debates in order to respond to what sustainability means. There is an international consensus on the general objectives of sustainability, on general common issues, but the specific, diverse and multiple situations require a deeper attention on the conceptual significance and on the tools and means to achieve it. We believe that integrating researchers' results on sustainability at the international level would help to develop an understanding of sustainability and how it can be applied in the long term.

Regarding the sustainability of public administration, the proefessional literature is limited in terms of defining and applying the concept to the field of administrative sciences. Through the present research paper we tried to offer a vision on sustainability within this system.

The debate on sustainability is a long-term process and involves analyzing all facets and aspects at a deep level to find solutions in order to solve long-term problems. Like other concepts, the definition of sustainability will change over time.

Sustainable development and sustainability have started to become important topics on Romania's agenda, trying to align with the other member states of the European Union, to adopt documents from the European level but also from the international level and to adapt to them. In order to integrate sustainability in the thinking of the three great powers of the state, joint, simultaneous efforts are needed to achieve a real social change.

Given the importance given to global sustainability, we consider it essential to integrate sustainability as a principle for the functioning of public administration, to incorporate the concept into the values of public authorities and institutions, and the behavior and thinking of elected or appointed civil servants and leaders. Building sustainability in the structure of an organization: in the mission statement, in the objectives, in the organizational structure and in the organizational management is the cornerstone for change.

Chapter 3 is the most extensive chapter in the thesis because it includes a general framework for sustainable organizational change, two organizational approaches to change in public administration are identified and adapted, two large-scale change tools are analyzed, a comparative analysis is performed of the identified tools and a large-scale change tool model is created.

We aimed to highlight three major milestones that should be included in a general framework of sustainable organizational change, namely: sustainability planning and vision setting, sustainability measurement, planning and developing scenarios. Of course, such a framework is not limited to these, but those mentioned should not be missing from the framework. During the chapter it is possible to observe numerous steps proposed by researchers that can contribute to changing sustainability, depending on the situation and context. Each public institution within the public administration is unique, each has a particular set of problems and solutions, challenges and opportunities, so it is essential to have in-depth knowledge of both the internal organizational situation and the external situation and context.

Some of the sustainability issues cross the boundaries of institutions, and their approach and management requires effective governance, intense organizational interaction and collaboration based on an integrated decision-making framework. The purpose of the framework is to establish a structured but flexible process in which the approved institutions and stakeholders are involved in planning, implementing and evaluating the results. In this regard, a structured decision framework proposed by the National Research Council of the National Academies has been adapted. The framework is based on adaptive management, a communication strategy, stakeholder involvement, creative approaches and includes processes, practices, principles, but also other aspects that need to be considered. This must be flexible enough to be able to be applied to a wide range of sustainability challenges, to be adaptable and to be measurable.

The enactment of a national sustainability policy would help to create an operational framework that explicitly delimits the roles and responsibilities of authorities and institutions on sustainability issues and would increase the achievement and effectiveness of interinstitutional cooperation. We believe that effective collaboration between institutions is particularly important for large-scale change and that is why we insist on emphasizing this aspect that underlies the desire for sustainable change. In order to maintain and improve sustainability, fragmentation of authority, inadequate exchange of information or other complexities may not be allowed to occur. Continuity in strategic plans that include sustainability also requires strong support from the highest levels of leadership, from politics and government.

Sustainability challenges occur in the long term and therefore institutions should invest in long-term research projects in order to have the necessary fundamental scientific understanding of sustainability or to collaborate with academic environment to focus on such issues.

The Kotter model adapted in the chapter was chosen for the steps it proposes to achieve lasting change through public administration reform, based on the vast experience of the author in the private sector.

Following the analysis of the literature, two tools for large-scale change were identified and presented, which we considered relevant for research. These tools are a system-wide approach to sustainable change that is part of a wider family of participatory approaches used in change processes. The distinct name used in these approaches refers to the trajectory chosen for change.

These tools can be applied in many areas of social life by solving complex problems that organizations face. Such approaches are seen by many researchers and practitioners as new methods of organizational change that have developed over the past three decades, but the success of case studies has recently made them known to the public sector and sparked interest in their adaptation and application. in some Member States of the European Union.

The chapter contains a comparative analysis of the two tools mentioned to determine the similarities and differences between them and how they can be applied for large-scale sustainable change. The tools identified are based on a variety of disciplines, so they involve an interdisciplinary approach, an integrated framework for change and the mobilization of a large number of people to be involved in the collective process of change..

After analyzing the two tools, studying the professional literature and applying interviews to practitioners and researchers, we have designed a model for large-scale public administration reform. A model tool for large-scale public administration reform can include the framework for preparing, implementing and evaluating a far-reaching change and thus contribute to sustainable organizational change. The success or failure of this instrument depends only on the social context, internal and external factors, the readiness and capacity of organizations to adapt, manage and evaluate.

In an environment full of uncertainties, the public administration needs leadership to manage the complex situations that occur more and more frequently. Leadership is a key factor in the progress of organizations towards sustainability and overcoming the complexities inherent in different challenges is dependent on effective leadership and support capacity. From the analysis of the specialized literature, the leadership process is given more attention in the private sector than in the public one. Therefore, we consider it necessary to strengthen leadership in the public sector, by initiating and implementing programs that attract and prepare the best leaders for public administration, so they can contribute to the development of appropriate leadership processes. Also,

a deeper understanding of management processes in complex environments is also essential for their improvement in the administrative system.

The second process approached, public administration reform, refers to a long process that is essential for progress. Public administration reform often presents complex political and cultural challenges, taking place in a political, economic and social context, with profound changes which makes this process not that easy. The most important aspects of the public administration reform in the last decade were: reviewing the structure of public administration, improving and developing administrative tools, allocating competencies between central public administration and local public administration for the decentralization process, setting up certain structures / agencies / institutions with a new mission and change of practices and procedures regarding the organization and functioning of the public administration.

Through reforms, public administration adapts to the needs of citizens and the development of societies. Adaptation is seen as a dynamic process, of adjusting the public administration according to the context, a process that we analyze in Chapter 4. By adapting the public administration to the external environment, organizational efficiency and performance can be improved, crises and complex situations can be overcome. caused by political, economic and environmental problems, which can occur at any time and with long-term effects. The public administration will often be forced to respond in adaptive ways to threats and opportunities that will arise through unusual, extreme and discontinuous events. Improving the adaptive capacity to develop suitable schemes and generate complex responses to them contributes to the development of a sustainable public administration. Environmental challenges and pressures will cause organizations to be dynamic, grow and meet conditions, change and adapt to survive.

Sustainable social change requires both social processes to drive change and administrative tools to be used to achieve goals. Although theoretically much of the national strategies and reform programs emphasize the importance of refining and developing tools to improve public administration capacity, few are created and widely used in public administration.

The chapter proposes three tools to be used by public administration, tools that refer to technology, environment and performance. The three instruments are at different stages of development and knowledge, all of which are used to a different extent by some Member States of the European Union. We considered the analyzed tools relevant because they have the potential to contribute to the sustainable development of public administration.

In the final part of the paper in the complementarity analysis, we conclude that trough the analysis of the directions, objectives and priorities of the three strategies, we can say that these strategic documents are complementary to each other, there is coordination and the same goal in terms

of administration and synergy in order to achieve the sustainable development of public administration, to strengthen institutional capacity and the efficiency of public administration. Complementarity is important for an integrated, synergistic approach, for the collaboration of strategies, programs and funding instruments to determine new features, to meet the objectives set by them.

Each chapter includes the achievement of a specific objective that contributes to the fulfillment of the general objective of the thesis. The first chapter refers to the first specific objective, to present sociological and complexity theories. Chapter 2 highlights the importance of the concept of sustainability in the social change of public administration. Chapter 3 identifies large-scale tools to be used in large-scale change and presents a model tool for large-scale reform to be a guide for change in Romanian public administration. Chapter 4 includes the presentation of the concepts of leadership, adaptation and reform as social processes and their role in the social change of public administration. In the last chapter, a complementary analysis of the strategies on sustainable development and consolidation of public administration is performed.

Both the first research hypothesis "Achieving sustainability in public administration requires large-scale transformation" and the third hypothesis, "A model tool for large-scale public administration reform can contribute to sustainable organizational change" were explained and confirmed in chapter 3 of the doctoral thesis. Regarding the second research hypothesis - "Reform is a vector of social change" is developed and confirmed in Chapters 3, 4 and 5, which highlights the role of the reform process in sustainable social change. In conclusion, we consider that the hypotheses were confirmed in the paper and the research objectives were met.

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APPENDIX – CONTENT DOCTORAL THESIS

Cuprins