THE NATIONAL SCHOOL OF POLITICAL AND ADMINISTRATIVE STUDIES

THE FACULTY OF PUBLIC ADMINISTRATION

The Doctoral School of Administrative Sciences

DOCTORATE THESIS

Scientific Coordinator: Professor Doctor Ani MATEI

> Ph. D. candidate: Ramona- Marcela PUICĂ

BUCHAREST 2021

MINISTRY OF EDUCATION AND RESEARCH

SNSPA

THE NATIONAL SCHOOL OF POLITICAL AND ADMINISTRATIVE STUDIES THE FACULTY OF PUBLIC ADMINISTRATION

The Doctoral School of Administrative Sciences

THE REGIONAL DEVELOPMENT AND THE IMPACT OF EUROPEAN FUNDS ON THE ADMINISTRATIVE SYSTEM IN ROMANIA -SUMMARY-

Scientific Coordinator: Professor Doctor Ani MATEI

> Ph. D. candidate: Ramona-Marcela PUICĂ

BUCHAREST 2021

CUPRINS

INTRODUCERE	10
0.1. Actualitatea temei	10
0.2. Sinteza capitolelor	12
0.3. Ipotezele de cercetare	16
0.4. Metodologia de cercetare	17
0.5. Motivația cercetării	18
CAPITOLUL I Dezvoltarea regională, de la abordarea conceptuală la influențe europer	ne,
naționale și regionale	18
I.1. Introducere	18
I.2. Dezvoltarea regională, concept, obiective și principii	20
I.2.1. Definiții și obiective generale	24
I.2.2. Principii fundamentale, tipologii și influențe asupra mediului economic și soc	ial
	26
I.3. O viziune de ansamblu asupra dezvoltării regionale la nivel european	40
I.3.1. Strategia Europa 2020, influențe și determinări	45
I.4. Prezentarea succintă a dezvoltării regionale privind evoluția și implementarea	la
nivel național	49
I.4.1. Analiza de ansamblu privind dezvoltarea regională în România	52
I.5. Concluzii	57
CAPITOLUL II Eficiența administrației publice, ca obiectiv al dezvoltării regionale	58
II.1. Introducere	58
II.2. Eficiența administrației publice - de la concept la operaționalizare	59
II.2.1. Cadrul normativ european privind eficiența administrației publice	64
II.2.2. Legătura dintre eficiență, eficacitate și performanță în administrația publică 🛛	66
II.3. Fondurile europene și eficiența administrației publice	69
II.4. Complementaritatea, instrument de creștere a eficienței administrației publice	77
II.4.1. Analiza conceptului de complementaritate strategică	77
II.4.2. Complementarități ale SNDR 2014-2020 cu alte programe de finanțare	81
II.4.3. Complementarități ale SCAP 2014-2020 cu alte programe de finanțare	90
II.5. Direcții și programe europene pentru creșterea eficienței administrației publice	93

merer recontatea a meter națonal a reclamatar operațional "Deco	
Capacității Administrative", în perioada de programare 2007-2013	96
II.5.1.1. Analiza financiară a datelor înregistrate și a progreselor realizate îr	1 uma
implementării PODCA	99
II.5.1.2. Rezultatele proiectelor finanțate prin PODCA 2007-2013 pană la 20 iulie 2	2015 și
beneficiile implementării	107
II.5.2. Prezentarea la nivel național a Programului Operațional "Cap	acitate
Administrativă", în perioada de programare 2014-2020	111
II.5.2.1. Clasificarea proiectelor în funcție de prioritățile de dezvoltare ale admini	istrației
publice	115
II.6. Impactul programelor operaționale și consolidarea administrației publice	117
II.7. Concluzii	122
Capitolul III Competitivitatea, izvor al consolidării administrației publice și al dezv	roltă rii
regionale, la nivel european și național	123
III.1. Introducere	123
III.1. Introducere III.2. Competitivitatea, evoluții conceptuale	123 124
III.1. Introducere III.2. Competitivitatea, evoluții conceptuale III.3. Abordări ale competitivității regionale și identificarea rolului competitivi	123 124 tății la
III.1. Introducere III.2. Competitivitatea, evoluții conceptuale III.3. Abordări ale competitivității regionale și identificarea rolului competitivi nivel regional	123 124 tății la 128
 III.1. Introducere	123 124 tății la 128 131
 III.1. Introducere	123 124 tății la 128 131 132
 III.1. Introducere	123 124 tății la 128 131 132 132
 III.1. Introducere	123 124 tății la 128 131 132 132 134
 III.1. Introducere	123 124 tății la 128 131 132 132 134 140
 III.1. Introducere	123 124 tății la 128 131 132 132 134 140 puntea
 III.1. Introducere	123 124 tății la 128 131 132 132 134 140 puntea 145
 III.1. Introducere	123 124 tății la 128 131 132 132 134 140 puntea 145 145
 III.1. Introducere	123 124 tății la 128 131 132 132 134 140 puntea 145 145 dalități
 III.1. Introducere	123 124 tății la 128 131 132 132 134 140 puntea 145 145 dalități 148
 III.1. Introducere	123 124 tății la 128 131 132 132 134 140 puntea 145 145 dalități 148 148
III.1. Introducere III.2. Competitivitatea, evoluții conceptuale III.3. Abordări ale competitivității regionale și identificarea rolului competitivi nivel regional III.4. Modele teoretice ale competitivității regionale III.5. Competitivitatea, în contextul consolidării administrației publice III.5.1. Marile provocări ale consolidării administrației publice III.5.2. Descrierea administrației publice, structuri de guvernare III.5.3 Instrumentele utilizate pentru modernizarea administrației publice III.5.4. Reorganizarea instituțională, mecanismele de piață, descentralizarea și de legătură dintre administrația publică și competitivitate III.5.5. Puntea de legătură dintre administrația publică și competitivitate III.6. Factorii determinanți ai competitivității regionale și identificarea unor mo de evaluare III.6.1. Analiza factorilor determinanți ai competitivității regionale	123 124 tății la 128 131 132 132 134 140 puntea 145 145 dalități 148 148 148 171

III.8. Concluzii	178
Capitolul IV Indicatorii economici, determinanți ai competitivității regionale și ai	creșterii
eficienței administrative	179
IV.1. Introducere	179
IV.2. Variabilele și ipotezele de cercetare	180
IV.3. Rezultatele cercetării	200
IV.4. Concluzii	202
Capitolul V. Un cadru de interacțiune între dezvoltarea regională, competi	itivitatea
regională și eficientizarea sistemului administrativ	203
V.1. Introducere	203
V.2. Principalele abordări în literatura de specialitate a interacțiunii dintre dez	voltarea
regională, competitivitatea regională și eficientizarea sistemului administrativ	203
V.3. Competitivitatea Guvernamentală în măsurarea eficienței administrației pul	olice 214
V.4. Indicatorii competitivității guvernamentale	232
V.4.2. Calitatea serviciilor publice prestate	235
V.4.3. Digitalizarea serviciilor publice	236
V.4.4. Furnizarea de servicii on-line	237
V.4.5. Date deschise	238
V.4.6. Un model de creștere al eficienței administrației publice	239
VI. Concluzii generale	242
VII. Bibliografie	251

SUMMARY OF THE CONTENTS

INTRODUCTION
0.1. The actuality of the theme
0.2. Synthesis of chapters
0.3. The research hypotheses and methodology12
CHAPTER I The regional development from the conceptual approach at European,
national and regional influences15
I.1. Regional development, concept, objectives and principles
CHAPTER II The efficiency of public administration, as objective of the regional
development
II.1. The European normative framework regarding the public administration efficiency 19
II.2. The connection between efficiency, effectiveness and performance in public
administration
II.3. European directions and programs for the growth of the efficiency of public
administration
II.4. The impact of the operational programs and the consolidation of the public administration
CHAPTER III Competitiveness, source of public administration consolidation and of
regional development, at European and national level
III.1. Theoretical models of regional competitiveness
III.2. Ranking of the development regions in report to the competitiveness
III.3. Identification of some assessment modalities for the regional competitiveness
CHAPTER IV Economic indicators, determinants of the regional competitiveness and of
the growth of the administrative efficiency
IV.1. Variables and research hypothesis
IV.2. The outcomes of the research
CHAPTER V A framework of interaction between regional development, regional
competitiveness and administrative system development
V.1. Governmental competitiveness in measuring the public administration efficiency
V.2. Model of growth of the public administration efficiency

VI. General conclusions	39
VII. BIBLIOGRAPHY – Articles, links	48
VIII. ANNEXES	49

INTRODUCTION

The regional development represents one of the main elements of the European Union, projected according to some thoroughly studied theories and principles, for the purpose of organizing, contouring and implementation of some agreements with positive influences over the economic, social and administrative deficiencies, aiming at the increase of the welfare of the population.

The notion of development is, by definition, a process which by implementing some systematic and well defined methodologies contributes at solving some social-human problems. The regional development process has for a main purpose the approach of the regional problems and the measures contained in the development actions, efficiently accomplished at regional level, and which focus on the good practice of sustaining and promoting richness, as part of a geographically integrated approach.

The idea of region is for the time being seen as being a European idea, a conditions that both the member states and those which wish to adhere at the European Union must meet in order to be able to accomplish the administrative-territorial reform. The notion of *regionalization* approaches the region as being the most efficient method of organizing space.

0.1. The actuality of the theme

These Two concepts, *region* and *regional development*, won a central position in the reports of the governments, of the central or local authorities, using the necessary mechanisms and instruments to start the regional development process at European standards.

Thus was born the **main objective** of this research study of identifying the application of the principles regarding the regional development policy in Romania, of the impact generated by the implementation of the European funds on the growth of the public administration efficiency, and also on the regional competitiveness. The documentation of the fundamental research lines regarding the evolution of the regional development concept and the analysis of the specialty literature regarding the current stage of the knowledge in the field were aimed at.

Thus, within this research for the accomplishment of the main objective, the following **specific objectives** were established:

> The definition of the concept of regional development, of the principles and models of regional development;

> The emphasize of the degree of absorption of the European funds;

 \succ The identification of the measures that need to be taken for the efficiency of the administrative system;

> The statistical analysis of the determinants factors of the regional competitiveness;

 \succ The analysis of the way in which the region development influences the growth of the regional competitiveness;

> The identification of the connection between efficiency, effectiveness and performance in public administration;

> The identification of some assessment modalities of the regional competitiveness;

> The connection between regional development, regional competitiveness and development of the administrative system.

The objectives of the research were funded and grounded so that they would comply with the research plan presented at the beginning of the program and they would lead us to understanding the frame of interaction between the analyzed concepts.

The work is elaborated in five chapters, in order to emphasize as faithfully as possible the contribution of the regional development, of regional and governmental competitiveness at the growth of the efficiency of public administration, with the mention that in the forth chapter of the work is presented the study case.

0.2. Synthesis of chapters

The first chapter of the work begins with a review of the concept of regional development from the approach at the level of notion to regional influences, and also with the presentation of a perspective on the stages of implementation of the regional development policy, both at European and at national level.

Approach which results from the analysis of the regional development and which represents the totality of the measures taken and sustained by the administrative system, in collaboration with several indicators have as a main purpose the accomplishment of a framework in which the economic and social growth is guaranteed, by efficiently exploiting the regional and local capacity.

The second chapter of the work presents the analysis of the concept of public administration efficiency as an objective of the regional development, by implementing some measures and ethic professional behavior standards, and later to adopt a set of procedures for the good functioning of the administrative activity.

In this chapter, we wish to make an analysis of the dimensions and effects of the European fundraising in the program period 2007-2013, respectively the period 2014-2020, at the level of the eight development regions of Romania, by identifying the level of the drawn European funds and of the improvements that need to be made on the administrative system in these development regions.

A significant part of this chapter was dedicated to the analysis of the complementarity between the National Strategy of Regional Development and the Strategy of Public Administration Consolidation, and also the analysis of the recorded data regarding the outcomes obtained consequently to the implementation of PODCA and POCA, taking into consideration the fact that the complementarity is the interaction phenomenon between two or more policies and financing instruments which work together to determine a new, characteristic feature that none of them could determine by itself.

The third chapter of the work analyzes the competitiveness in the context of public administration consolidation by identifying the strategic role competitiveness has at the regional level, and by which instruments, respectively, factors, the connection bridge between competitiveness and public administration efficiency is made. In the second part of this chapter, we gave a special attention to the empiric approach regarding the implications of the economic, respectively governmental indicators regarding the stimulation of the regional growth.

In this chapter the connection between the first two chapters was made, by calculating the regional competitiveness indicator for each development region based on the economic, social and technologic sub-indicators, which mark a personal contribution in the steps made for the identification of the factors that directly influence the regional competitiveness.

In chapter four of the work we analyzed the level of regional development measured by the Regional Competitiveness Index (ICR), which evaluated the determinants factors of the regional competitiveness for a period of ten years, for eight development regions of Romania, thus analyzing "the capacity of a region to offer an attractive and long lasting environment for companies and citizens, to work and live in"^{1,} and also the level of the growth of the public administration efficiency measured by the indicators of the governmental competitiveness.

Thus, we made a quantitative study regarding the correlation of the outcomes of the regional development level, respectively the standard of living, reported at the relation between the Regional Competitiveness Index (CRI), considered a dependent variable, and the independent variables, such as GDP/individual, the research/development expenses, the productivity of work calculated as a result of the report between the GDP and the Total of the Occupation Rate for the age category 15-64 years and the total of the occupation of the work force (15-64 years), and also the growth level of the administrative system efficiency, respectively the Governmental Competitiveness Indicator (ESA), measured by sub-indicators such as the digital public services, the development of the abilities of the human capital, the IT specialists and the use of internet in the relations with the public institutions, considered independent variables.

The methodological instrument chosen for the research was the statistical program SPSS (Statistical Package for the Social Sciences), being one of the most used programs in the statistical analysis of the data, flexible concerning the accepted data types and concerning the method of reports elaboration.

We thus wish that by this scientific route, both theoretic and empiric, to contribute at the current stage of the research on the assessment of the impact that the European funds have on the regional competitiveness and on the growth of the administrative system efficiency in Romania.

In conclusion, by this research study, we wish to answer two essential questions, namely:

1. Does the regional development contribute to the efficiency of the public administration?

The efficiency in the public administration represents not only a connection between resources and production, but mostly a correlation of the outcomes and of the responsibilities.

Schachter, D. L. (2007) considers efficiency to be an integral part of the public administration, emphasizing the multitude of the analysis made in the specialty studies.

Frederickson, G. (2010) considered that being "efficient and economic" represents in fact two fundamental principles of the public administration because "efficient" supposes that what

¹European Commission, European Regional Competitiveness Index

https://ec.europa.eu/regional_policy/en/information/maps/regional_competitiveness/, accessed in October 2020.

you do is at high standards, and "economic" is to achieve that objective with small financial resources.

Rutgers M. R. și Van der Meer, H. (2010) go back in time at Aristotle's activity regarding the knowledge and they affirm that efficiency supposes the fulfillment of some objectives, thus the affirmation of Bentham, J. (1843) was also accepted "regarding the contribution to purposes, but not like an economic relation between resources and effects"², but used as a means of comparison in the context of "creating richness".

2. Does the regional development contribute by means of regional and governmental competitiveness at the public administration consolidation?

In the specialty literature, the approach of the competitiveness was made by accepting it as an economy notion in the context of the regional development with the application of the price competitiveness principle (Porter, M. E. 1990, Rugman, A. M. şi D'Cruz, J. R. 1993) then, with the application of the management perspective (Mahmoud, M. et al., 1992, Powell, C. 1992)) and later with the application of a historical and socio-cultural perspective (Franke, R. H. şi colab., 1991, Porter, M. E. şi colab., 2001)).

Also, the approach of competitiveness was modified, in the sense that they agree with the identification of some competitiveness levels, starting with competitiveness at the company level (Snieska, V. și Draksaite, A. 2007, Balzaravičienė, S. și Pilinkienė, V. 2012) continuing with competitiveness at the sector level (Peters, M. A. 2010, Balkytė, A. și Tvaronavičienė, M. 2010), competitiveness at regional level (Sepic, D. 2005, Snieška, V. și Bruneckiene, J. 2009), competitiveness at national level (Arslan, N. și Tathdil, H. 2012), and also competitiveness at international level (Faucheux, S. și Nicolaï, I. 2011).

The competitiveness of a region does not consist only in the competitiveness of its constitutive individual companies and in their interactions, but also in the larger assets in their social, economic, institutional and public attributes of the region.

0.3. The research hypotheses and methodology

This research paper is based on a series of research hypotheses, hypotheses that have been confirmed, in part or in full, and hypotheses that have been refuted during the research.

² Bentham, J. (1843), *The works of Jeremy Bentham*, Edinburgh, W. Tait; London, p.15

Thus, the research hypotheses formulated are the following:

Hypothesis no. 1. Is there a positive relationship between ICR and GDP?

Testing the hypothesis showed that there is a positive relationship between the two variables, so the higher the value of GDP, the higher the indicator of regional competitiveness.

Hypothesis no. 2. Is there a positive relationship between ICR and Labor Productivity?

The testing of the hypothesis showed that there is a positive relationship between the two variables, so that as labor productivity increases, so will the regional competitiveness indicator.

Hypothesis no.3. Is there a positive relationship between ICR and Total Employment Rate?

Hypothesis testing has shown that this relationship is not statistically significant.

Hypothesis no.4. Is there a positive relationship between ICR and Research and Development Expenditures?

Testing this hypothesis showed that there is a statistically positive relationship between the two variables, so the higher the R&D expenditures, the higher the level of the regional competitiveness indicator.

Hypothesis no.5. Do digital public services influence the governance indicator (ESA)?

Testing the hypothesis showed that this relationship is not statistically significant, so that digital public services do not influence the governance indicator.

Hypothesis no. 6. Does the development of human capital skills influence the governance indicator (ESA)?

Hypothesis testing has shown that this relationship is not statistically significant, so the variable development of human capital skills does not influence the governance indicator.

Hypothesis no. 7. Do IT specialists influence the ESA governance indicator?

Testing this hypothesis has shown that there is a positive relationship between the two variables, so that the independent variable IT specialists influence the governance indicator and the model is statistically significant.

Hypothesis no. 8. Does the use of the Internet in relations with public institutions influence the governance indicator (ESA)?

Testing this hypothesis has shown that there is no positive relationship, so the variable use of the Internet in relations with public institutions does not predict the governance indicator.

Hypothesis no. 9. Does the variable GDP influence the governance indicator (ESA)?

Testing this hypothesis showed that there is no statistically positive relationship between the two variables, the GDP-dependent variable does not influence the governance indicator.

Hypothesis no. 10. Does the variable Employment Rate influence the governance indicator (ESA)?

Testing this hypothesis showed that there is a statistically positive relationship between the two variables, so that the employment rate variable predicts the governance indicator.

Hypothesis no. 11. Does the variable Labor productivity influence the governance indicator (ESA)?

Testing this hypothesis showed that there is no statistically positive relationship between the two variables, the variable labor productivity does not influence the governance indicator.

Hypothesis no.12. Variable R&D expenditures predict the governance indicator (ESA)?

Testing this hypothesis showed that there is no statistically positive relationship between the two variables, so that the R&D expenditure variable does not predict the governance indicator.

In order to reach the objectives initially established, regarding the approached theme and in order to test the formulated hypothesis, the work was made by using certain methods, respectively the bibliographic method by consulting the official sources, of the bibliographic sources and of the legislation in the field, the empiric method by proposing a model of efficiency of the public administration, the research method by elaborating the case study and the comparative analysis method.

The motivation for the research of this theme consists in the constant preoccupation and in the evolution regarding the analysis of the degree of access of the European funds by all the development regions of the member states. After the adherence at the European Union and after a programming period, respectively 2014-2020, period during which Romania benefitted from structural and cohesion funds, the interest at political level and not only, is extremely high regarding the degree of absorption of European funds. CHAPTER I The regional development from the conceptual approach at European, national and regional influences

I.1. Regional development, concept, objectives and principles

The European Union was born consequently to the various interactions and disagreements existent between the member states, confronting with major regional differences, and with the fact that it did not succeed in totally implementing the regional development process and in fulfilling thus a great wish, namely the increase of the disparities at regional level.

The specialty literature emphasizes the fact that a great part of the studies in the field of regional development started with the analysis of the economy at the institutional level, reason for which a series of hypothesis appeared, according to which an increased institutional qualitative index generates the economic growth. That brought the belief that the efficiency of the institutions which have a positive influence on the economic and social environment creates in fact the favorable framework for the regional development process.

The implementation of the regional development measures is based on several fundamental principles:

- **The principle of concentration** supposes that the allocated funds have for a purpose the focus on the efficiency of the measures destined to the disadvantaged regions;

- **The principle of coherence** implies the totality of the necessary efforts for sustaining the disadvantaged regions;

- **The principle of partnership** implies a close collaboration between the European Commission and the national, regional and local authorities, economic and social partners and other relevant organisms, and also their implication in the regional development stages;

- The principle of subsidiary implies the responsibility and the assumption of the individual actions and consequences;

- **The principle of addition** implies that the allocation of the measures of financial sustaining at the level of each region implicates, in fact, the consolidation of the financial efforts.

- **The principle of co-financing** represents the degree of financial support in the continuation of the regional development objectives;

- The principle of decentralization represents the assumption of certain measures at central or governmental level at the level of the regional communities.

- **The principle of assessment** implies a careful monitoring effectuated during the implementation of the program, and also at the end of it in order to evaluate the level of achievement of the established objectives.

The classification of the traditional models of regional development:

a) The model of the poles of growth and development - it presents the stage of polarization and the effects resulted on the social and economic development.

b) The model of unbalanced development – the author of this theory, A. Hirschman, considered that "the investment is important, but not sufficient, a complementary technique being necessary"³.

c) The model of circular cumulative causality – implies the fact that the economy does not head to balance, on the contrary, being characteristic mainly for the development regional structures. Gunnar, M.⁴ conceived the circular cumulative causality as a principle of economic inequity, as it is presented in the following figure:



Figure no. 1.1. Direct negative effect on the region

Source: Prašo, M., (2001), p. 328.

³ Hirschman, A. O. (1958), The Strategy of Economic Development, New Haven: Yale University Press.

⁴ Gunnar, M. (1957), *Economic theory and underdeveloped regions*, London, Duckworth.

Thus, analyzing the theory presented above, we notice the fact that "in the systems which are mutually connected, the change of a variable affects the change of another which acts in the same direction, which implies that the cumulative process extends in a singular circular flux and it is possible to produce positive effects in a single place and at the same time, and it may generate negative effects in another place". (Gunnar, 1957).

d) The model of dependence – was created on the principle that instead of sustaining a development region to pass over the development obstacles and to ensure its financing, it is better to constitute the connection between the development regions and their surroundings.

e) The model of the export base – was conceived during the period 1964-1968, the principles of this theory are focused on the factors of the external market which generates the export, considered to be a lever for the start of the development process.

f) The model of the production specialty – this theory emphasizes the representative factors which influence in a positive manner the specialization process.

Summarizing the classic models of regional development we obtain a short presentation of them, accompanied by the afferent characteristics, as follows:

Classic models of regional	Characteristics of the classic models of regional	
development	development	
-space polarized development	non-uniform, it appears in different moments and places	
-integrated development	Outcomes obtained from a generally accepted value system, both by institutions and by communities	
-durable development	For the growth of an area, it is necessary to choose the best possible way of fulfilling the collective needs	
-eco-development	It adopts the requirements of the natural environment, with the purpose of keeping the capacity of nature to regenerate	
-neo-classic development	It has the tendency to uniform the development levels between the regions, as a consequence of the mobility of the growth factors	
- post-Keynesian	Regional disproportion because the most developed regions	
development	are submitted to a dynamic development	
-endogen development	Evolution from down to up, inspired by the dependence of the inherent potential of a region	

Table no. 1.

Source: personal processing of the data

Dinu M. was saying that "there is not a universal model to follow regarding the development, but only institutionally specific alternative models, given by the history time, by the geographic space or by the fact condition from different countries"⁵.

The main objectives which need to cover the problems with which the administrativeterritorial units and each separate development region are confronting are the following:

> The reduction of the existent regional unbalances;

 \succ The elimination of the bureaucratic barriers in order to facilitate the access to the European funds;

 \succ The adaptation of the policies at the regional level by supporting the actions of revaluation of the regional and local resources;

> The support and promotion of the inter-regional, internal and international cooperation in view of the economic development.

Yet, the policy of regional development in Romania must establish and implement measures for the development of each development region separately, in accordance with the measures established at national level. According to these objectives, the strategic principles were set, as they are presented in the table below:

Strategic principles set at national level	Strategic principles set at local level		
> Promotion of the instruments of market economy at the level of the development regions;	 Reduction of the regional disparities; 		
≻ Equitable development of the territory;	Correlation of the initiatives of regional development with the national priorities and with the European Union orientations;		
 Sustaining the regions to develop at institutional, economic, financial and decisional level; Promotion of the principles of long lasting development; 	Sustaining the policies differentiated depending on the local specifications;		
➤ chance equity regarding the access to information, research-development, education and continuous training;			

Table no. 1.4. Strategic principles

Source: personal adaptation of the data

⁵ Dinu, M. (2006), *Getting out of the alternative*, Theoretic and applied economy, The Academy of Economic Studies, Bucharest, p. 97.

CHAPTER II The efficiency of public administration, as objective of the regional development

The efficiency of public administration is measured in the quality of the public services supply and in the degree of content of the citizens, taking into consideration that in order to be considered efficient, an institution needs to have efficient employees.

By efficiency of public administration, talking conceptually, we understand that ,,there is not a legal regulation unitarily adopted by all the member states of the European Union in order to assure the efficiency in public administration, defined by the European Carta of the human rights"⁶.

Thus the specialty literature identified several forms of the public administration efficiency and elaborated the following classification:

✓ The productive efficiency - ,,[...] the production of goods and services at the smallest $\cos^{2} - it$ may be found on the front of the production possibilities which imply the attainment of a greater quantity of goods by diminishing another's quantity⁷;

 \checkmark The technical efficiency - "To say that the company is efficient supposes that it produces the maximum of the minimum quantity of in-puts, such are the work force, capital and technology"⁸.

 \checkmark The locative efficiency – consists in the report cost/benefit and it is founded on the equitable distribution of the goods and services destined to satisfying the clients' needs.

II.1. The European normative framework regarding the public administration efficiency

The concept of public administration brings in the close plan a new problem which comes from the relation between traditional and modern, context in which we can state that the European public administration is an "unusual concept in a traditional approach of the public administration"^{9.}

⁶ Tizziano, A. (2011), Protection of fundamental rights: the main contribution of the European Court of Justice on the constitutional evolution of the EU, Romanian Journal of European Law, nr.6, pp. 28-41.

⁷ Pettinger, T. (2017), *Productive vs allocative efficiency*, Economics Help,

http://www.economicshelp.org/blog/2412/economics/productive-vs-allocative-efficiency, accessed in May 2019. ⁸ Idem (2017), *Technical Efficiency Definition*, September 28 2017, Economics Help,

http://www.economicshelp.org/blog/glossary/technical-efficiency/, accessed in June 2018.

⁹ Matei, L., (ed), (2005), *European Administration Contemporary Concepts and Approaches*, The Economica Publishing House, Bucharest, Romania, p.11.

At the level of the European Union, three important reforms in the field of public administration were identified, as follows:

> A first reform presents the implementation of the structures in Weberian style, transforming the patrimonial system in a modern administration, with transparent rules and procedures;

 \succ A second reform of the public administration, known under the name of the new public management, draws our attention especially on the introduction of a market mechanism and of a circuit of management of the activities in the public sector;

> A third reform of the public administration unites the elements of the Weberian model of public administration with the model of the new public management, being a trial of remediation of aspects such as the impartiality, legality or Weberian neutrality with instruments specific for the new public management.

All these reforms of the public administration interact at their turn with the administrative culture and the administrative system at the level of the European Union, the common feature being a substantial heterogeneousness of the entire set of accomplished reforms.

II.2. The connection between efficiency, effectiveness and performance in public administration

The efficiency of public administration may be assessed depending on the outcomes obtained in comparison to the used resources, while the effectiveness measures the expenses involved, the resources and the outcomes expected to be obtained.

The measurement of the performance of the public sector, in the author's conception, implies taking into consideration the difference between: the means used (entries), the process (the debit), the product, (the exit) and the obtained effect (outcome). Thus, the assessment of the performance can be made with the following measurements categories¹⁰:

- The measurement of the economy of resources, which can be determined by comparing the acquisition price of the entries with the designated value; measurement of the

¹⁰ Profiroiu, M., Profiroiu, A. (2007), *Analysis framework of the performances of public sector*, Theoretic and applied economy, pp. 44-47.

costs, which implies the measurement in the monetary expression of the resource consumption in order to supply a certain product or service;

- The measurement of the efficiency, which takes into account the obtained outcome in report to the used resources and if maximum outcomes are obtained with a given level of resources or if it uses minimum resources for a certain level of the outcome;

- The measurement of the efficiency, which is quantified by the report between the real outcome and the expected level;

- The measurement of the quality of services, which is seen in order to survey the degree in which the product/public service satisfies the citizens' requests;

- The measurement of the financial performance;

- The measurement of the general performance.

For an efficient, transparent, competitive and bureaucracy free public administration it is necessary to use in the biggest percentage as possible the European funds put at our disposal by the European Commission for this field of activity.

II.3. European directions and programs for the growth of the efficiency of public administration

The public administration from Romania needs a radical modification in order to offer some qualitative and efficient public services and to assimilate the values from the European public administration.

Thus, as strong points was identified the success of the reformation program implemented until now, the weak points represent the motivation for the reformation program during the next period and the opportunities identified by factors of the external environment which sustain the reform process and the threats identified by the stopping mechanisms of this process, we could consider that the opportunities and the threats together reflect the influence of the external environment on the public service.

Strong points	Weak points		
- implementation of an adequate legal frame	- limited knowledge of the staff management which		
for the current public function;	carries on activities within public services;		
- clarifying the financial management	- the transfer of competences with the deficient		
system of public services;	allocation of the financial resources;		
- implementation of the expenses standards,	- lack of monitoring systems (cost standards) of the		
as a method of assessment of the quality of	activities of certain public services of major		
certain services.	importance, such as the population's registration		
	service.		
Opportunities	Threats		
- the initiative of the European Union for	- resistance at change of the main actors involved in the		
- the initiative of the European Union for the development of the administrative	- resistance at change of the main actors involved in the carrying on of the activity of public services;		
- the initiative of the European Union for the development of the administrative capacity for the period 2014 - 2020, having	 resistance at change of the main actors involved in the carrying on of the activity of public services; still small capacity of absorption of the European 		
- the initiative of the European Union for the development of the administrative capacity for the period 2014 - 2020, having as an outcome the economic growth;	 resistance at change of the main actors involved in the carrying on of the activity of public services; still small capacity of absorption of the European funds, which leads to a deficient development in the 		
 the initiative of the European Union for the development of the administrative capacity for the period 2014 - 2020, having as an outcome the economic growth; the possibility of developing the public 	 resistance at change of the main actors involved in the carrying on of the activity of public services; still small capacity of absorption of the European funds, which leads to a deficient development in the fields where these aspects are noticed; 		
 the initiative of the European Union for the development of the administrative capacity for the period 2014 - 2020, having as an outcome the economic growth; the possibility of developing the public services and implicitly of over passing their 	 resistance at change of the main actors involved in the carrying on of the activity of public services; still small capacity of absorption of the European funds, which leads to a deficient development in the fields where these aspects are noticed; inferior motivation of the staff which works in these 		

Table no. 2.16. SWOT analysis of public administration from Romania

Source: Matei, A., Gaita, C. (2014)

All along the time, Romania manifested its preoccupation for the modernization of public administration by orienting its attention to the citizens, by reducing the time for the services supply, by implementing the cost and quality standards in the fields which are essential for the activity, such as the education and the social assistance.

 Table no. 2.17. Overview of the National Strategies regarding the public administration

 efficiency

National strategies Vision		Objectives	Action directions	
	Policies regarding the better	- Actualization of the	- Decentralization	
	government constitute a	techniques and levers of	of public	
"Strategy for a	component of the	applying the adopted	administration;	
better regulation	modernization of public	measures.	- Reform of the	
2014-2020 " ¹¹	administration, assuring the		public function;	
	premises of a durable socio-			
	economic development.			
	An administration that	- implementation of a	- remedial of	
	simplifies and consolidates	performing management;	structural	
"Strategy for the	institutions and mechanisms	- decrease of	deficiencies;	
consolidation of	and new approaches;	bureaucracy;	-obligation of	
public	A public administration	- assuring the quality and	achieving the	
administration"	oriented to the beneficiaries	access at public services;	objectives assumed	
	of public services.		by the Strategy	
			Europe 2020;	
	Modernization of the	- achieving an efficient	- Implementation of	
	judicial system by	and accessible act of	some measures	
	implementing a strategic	justice in compliance	regarding the	
"Strategy of management, the with the fund		with the fundamental	improvement of the	
development of the	efficient use of the	rights and obligations of	legislation in the	
judicial system	resource, and also	the human being.	judicial field	
2015-2020"	innovative solutions of			
	growth of the			
	performance and			
	accessibility;			
	Setting the framework	- adopting measures	- civil status,	
"Integrated plan	regarding the achievement	which imply the	citizenship;	
regarding the	of the main objectives	implementation of the e-	ion of the e fiscal relations;	
reduction of the	contained in SCAP 2014-	governing solutions.	itions property;	
tasks of the	2020, especially the	especially the - education;		
administrative	redirection of the		- health;	
system"	administrative system to the			
	beneficiaries;			

Source: personal adaptation of the data

¹¹Strategy of Communication for Structural Instruments 2014-2020, http://poca.ro/wp-content/uploads/2016/04/Strategia_comunicare_IS_2014-2020.pdf, accessed in September 2020.

Thus, the main objective of the presented strategies in the table above consists in the creation of some stable and predictable public institutions, able to resist to the various challenges of the society, which should be transparent and should promote the improvement of public services.

II.4. The impact of the operational programs and the consolidation of the public administration

After Romania's adherence at the European Union, the main preoccupation of the member states was related to the capacity of adopting the measures designed to favor the economic and administrative development of the country, the success being associated most of the times with the impact the implementation of the regional operational programs has on the regional development.

After the effectuated researches, Dall'erba, S. şi Le Gallo, J. (2007) noticed the fact that from the multitude of studies which had as research subject the regional development policies, only a few had a global approach, namely they used in a unitary manner the same coefficient for the pattern regarding the measurement of the structural funds.

Fotheringham, A. and collaborators (2004) sustained the idea according to which a geographic oscillation of the agreed coefficients is benefic, taking into consideration the fact that thus the geographic disparities and the effects on the regional operational programs can be covered, in spite of the use of a global coefficient which would be representative for certain regions only.

The analysis of two theoretic approaches is thus imposed, respectively the theory of the neoclassic theory, which considers the structural funds and implicitly the investments, which can be achieved by accessing the European funds, as a clear modality of increasing the incomes, as long as the marginal product decreases, and the regional development rate increases.

Yet, as opposed to this theory there is the theory of the endogen growth which considers that the investments stimulate the growth of the marginal product and of the capital, but, in order to emphasize the impact of the operational programs on the growth of development, we must understand the fact that the progress made in the field of infrastructure does not necessarily constitute an instrument by which the regional development can be promoted. As a consequence, the impact of the European funds on the regional growth and development was seen inappropriately, from two perspectives, respectively, the first related by the belief that any public investment generated compulsorily the growth and development of the region and the second perspective was associated with the belief that the multitude of effectuated studies are the guarantee of the fact that they realistically measure the impact of the accessed European funds.

The impact of the access of the European funds is reflected in the progress obtained and they are of natural order and we refer here at the reform of public administration respectively, a scientific impact taking into consideration the outcomes of the projects regarding the elaboration of some good practice, training guides, textbooks, strategies, measures plans, brochures and work methodologies.

Thus, the modernization of the entire administrative system and the implementation of a new system based on rules and procedures which sustain the promotion of efficient, ethical and equitable management practice, on the development of innovation, on the digitalization of the system, on the efficient, effective and economic use of the human and financial resources is necessary.

CHAPTER III Competitiveness, source of public administration consolidation and of regional development, at European and national level

Competitiveness is a subject very often analyzed by the scientific, political and economic environments that have numerous opinions regarding the development of the concept at the level of the companies, industries, exports, international exchanges or locations, with connections in the theory of clusters of M. Porter, in the new economic geography theories and of the regional economy from the works of Krugman, P.

"The importance which is given to the problem of competitiveness can be explained also by the more and more emphasized economic integration and globalization, economic processes sustained and accelerated only by a constant growth of the competitive force of all the economic entities of a country, and also of itself^{*12}.

¹² Pelinescu, E., Iordan, M., Chilian, M. și Simionescu, M. (2016), *Competitiveness- Regional competitiveness in Romania*, The University Publishing House.

III.1. Theoretical models of regional competitiveness

A model of regional competitiveness represents for the economic agents the ability of selling products and services on a certain market, being an essential feature necessary for the prosperity and development of a community.

A more competitive economy would improve the position of our country on the world's economic stage, as much as the future of Romania does not depend only on the economic performance of the big multinational companies present here, but also on the success of the small and middle enterprises able to compete on local and international plan and to generate a solid middle class, endowed with the necessary means to protect itself against the inherent cycles of development and recession, characteristic to the capitalist systems.

Analyzing the competitiveness models, we ascertain the fact that they sum up information regarding the determinant factors of the economic growth at regional level, of the production factors and of the geographic position, as follows:

 \checkmark models of neoclassic growth – emphasize the needs of the work force market;

 \checkmark models of endogen growth – promote the idea according to which the innovation can produce tangible results;

 \checkmark models of analysis of the production factors at local and regional level – sum up the actions taken for the socio-economic growth.

Another regional competitiveness model is the model of competitiveness depending on the expenses, such as the assessment of the expenses with the production factors at regional level. The measurement of the competitiveness of a development region implies in fact a real testing of the competences, abilities in choosing the most efficient indicators.

III.2. Ranking of the development regions in report to the competitiveness

Some development regions, which are also capitals, are surrounded constantly by competitive regions, thus indicating the presence of some contagion effects, nut, in many other member states of the European Union, the peripheral regions are much less competitive.

No.	Country	Development region	Score (0-100)	Rank
1.	Sweden	Stockholm	100.0	1
2.	United Kingdom	Inner London West & Inner London East & Outer London East-North-East & Outer London South & Outer London West North West & Bedfordshire/ Hertfordshire & Essex	99.1	2
3.	Holland	Utrecht	99.0	2
4.	United Kingdom	Berkshire, Buckinghamshire and Oxfordshire	98.6	4
5.	United Kingdom	Surrey, East and West Sussex	98.4	5
6.	Denmark	Hovedstaden	97.8	6
7.	Luxembourg	Luxemburg	94.4	7
8.	Germany	Oberbayern	94.2	8
9.	Holland	Flevoland & Noord-Holland	93.2	9
10.	Finland	Helsinki-Uusimaa	92.3	10

Table no. 3.30. Ranking of the ten most competitive development regions

Source: The EU Regional Competitiveness Index (2019)

*The equal degree is attributed to the regions whose score difference on the scale 0-100 is under or equal with 0,1

Graphically, the situation of the ten most competitive development regions is presented in the following figure:



Figure no. 3.17.

Source: personal processing of the data

On the first position there is the region Stockholm, followed by Utrecht and London sharing the second position. But, the majority of the top regions are either capital cities, or big metropolitan areas whose advantage consists in the connectivity of the economic activities and of the specialized human capital, at the engines of growth and competitiveness.

At the opposed pole there are five Greek development regions, a Romanian development region, a Bulgarian development region and an autonomous Spanish town, Melilla, situated on the North coast of Africa, plus the French ultra-peripheral regions Mayotte and Guyane.

London and its peripheral areas include seven development regions of NUTS 2 level and it is in the top of the ten most competitive regions, while for the first time since the publishing of the report of the regional competitiveness index, the Dutch region Utrecht is not the most competitive, but it is on the second rank together with the British region Bedfordshire/ Hertfordshire & Essex.

At the opposed pole there are the development regions from Greece and Romania, a development region from Bulgaria and one from Spain and two regions from France, namely Mayotte and Guyane which is an ultra-peripheral region. As it was mentioned in article 174 of the Treaty regarding the functioning of the European Union 12, the ultra-peripheral regions have specific features, reason for which not all of them are concluded in the regional competitiveness index and they shouldn't be taken into consideration when we analyze the outcomes of the ultra-peripheral regions and shouldn't be compared to other regions.

No.	Country	Development regions	Score (0-100)	Rank
1.	Greece	Notio Aigaio	7.9	259
2.	Bulgaria	Severozapaden	7.6	260
3.	Spain	Ciudad Autonoma de Melilla	6,7	261
4.	Greece	Dytiki Ellada	6.5	262
5.	Greece	Dytiki Makedonia	6.1	263
6.	France	Mayotte	5.8	264
7.	Greece	Anatoliki Makedonia, Thraki	5.7	265
8.	France	Guyane	5.6	265
9.	Romania	South-East	5.3	267

Table no. 3.31. Ranking of the 10 most uncompetitive development regions

10.	Greece	Voreio Aigaio	0.00	268	
Sources The EU Decional Compatitivances Index (2010)					

Source: The EU Regional Competitiveness Index (2019)

In the schedule below is presented the situation regarding the evolution of the most uncompetitive development regions, as follows:



Figure no. 3.18.

Source: personal processing of the data

Thus, the capital regions tend to be the most competitive regions in their country, the difference between the capital region and other development regions is bigger in some countries, such as Romania, Greece, Bulgaria and France.

These countries are characterized by a high level of variability in the interior of the country resulting a great difference between the capital region and the rest of the country, difference considered a concern reason because it puts a great pressure on the capital region, while this can leave a part of its resources in other under-used regions. There are situations in which the difference between the capital region and the second most performing region is relatively small, but still, a small difference between the capital region and other regions does not mean that the entire country functions well.

III.3. Identification of some assessment modalities for the regional competitiveness

Taking into consideration the fact that only those indicators for which there are available information for Romania and which reflect clearly the characteristics of regional competitiveness are relevant, we used the following indicators and sub-indicators categories: economic indicators, respectively, the economic environment and the economic reform, social indicators, respectively the occupancy of the work force and the social cohesion and technological indicators, respectively innovation and research.

According to Duran, M. and Giorno, C. the indicators by which we can measure competitiveness must fulfill the following conditions "to cover all the sectors exposed to competition, to contain all the markets opened to competition and to be built out of data which can be internationally comparable"¹³.

The choice of a method of assessment of the regional competitiveness supposes firstly the setting of the objective and the analysis of the advantages and disadvantages, thus, if the objective is to identify the factors which influence the regional competitiveness, then the method in which a ranking is made is very easy to apply because it permits the comparison between the regions, in order to see which is the most competitive region depending on the regional resources, the efficiency of their use and the influence on the socio-economic environment and, at the same time, which region is the less competitive.

Thus, the indicators were grouped in three big categories, respectively, economic subindicators, social sub-indicators and technological sub-indicators, which we calculated after the formula proposed by the Applied Economy Group (GEA)¹⁴:

RCI = (40*IE + 30*IS + 30*IT)/100							
Development regions	Year						
Development regions	2012	2013	2014	2015	2016	2017	2018
North-West Region	38	37	38	38	37	37	33
Central Region	34	35	35	36	37	36	30

Table no. 3.36. THE REGIONAL COMPETITIVENESS INDICATOR 2012-2018

¹³Duran, M., Giorno, C. (1987), *Indicators of international Competitiveness: Conceptual aspects and evaluation*, OECD Economic Studies N-9, pp. 149-150.

¹⁴ Book of regional competitiveness assessment, (2017), elaborated within the GOF project GOF Romania - Building Regional Assessment Capacity in Line with the Lisbon Agenda, Bucharest.

North-East Region	36	37	36	36	36	36	32
South-East Region	34	33	32	33	33	32	29
Bucharest-Ilfov Region	48	49	49	49	50	50	37
South-Muntenia Region	44	49	49	44	49	50	42
South-West-Oltenia Region	34	34	35	33	33	33	30
West Region	36	36	36	37	36	35	31

Source: personal processing of the data found on the site http://statistici.insse.ro/shop/?page=ipc1

We used a method to interpret the percentage value of the regional competitiveness index, as follows: 0 - 33% - low; 34 - 66% - moderate; 67 - 100% - good.

Analyzing the data in the table above, we notice that only at six of the eight development regions RCI has a small level of up to 38% during the period 2012-2018 and only for two development regions the value of RCI is of 50%, respectively the Region Bucharest-Ilfov during the years 2016 and 2017, and also the Region South-Mountenia in the year 2017, which reflects a moderate level of RCI.

CHAPTER IV Economic indicators, determinants of the regional competitiveness and of the growth of the administrative efficiency

There are different opinions regarding the measurement of regional competitiveness, and the national studies emphasize the relevance of the indicators proposed by the Applied Economy Group (2007), respectively economic, social and technological indicators, which we determined in the previous chapter, where we calculated the Regional Competitiveness Index (RCI).

Thus, within this chapter, we selected four economic factors which we considered eligible with the regional competitiveness, we collected the information from the Regional Statistical Year-book for each of the eight development regions for the reference period 2009–2018, then we selected other four factors, characteristic for the administrative system, for the reference period 2016-2019, in order to see at which extent each of these factors influence the growth of the administrative system efficiency.

The concept regarding the regional development level is somehow equivalent in the citizens' perception with the standard of living, which is quite hard to define, to explain and to debate, because a big part of the population would fit in a low standard of living, but, in the

context of the report at the level of GDP (Gross Internal Product) per individual, things could be different.

IV.1. Variables and research hypothesis

The hereby research was made by the method of collecting data, thus we selected the most representative economic and governmental indicators, taking into consideration firstly the availability at regional level of the necessary statistical data, and later they made the object of the analysis of the outcomes using the descriptive statistical analysis, such as average, standard deviation, Spearmean correlations, used for measuring the normality of the distribution of the variables, of the directions in which the indicators submitted to the analysis evolve.

Thus, we will analyze the connection and the way in which the following independent variables influence themselves, GDP /inhabitant, Productivity of work, Total Rate of Occupation and the Research-Development expenses and the dependent variable (RCI) – the Regional Competitiveness Index, and also the independent variables IT Specialists, Digital public services, Development of the abilities of the human capital, the use of internet in the relations with the public institutions and the dependent variable (ESA) – Administrative System Efficiency.

Also, the study verified if the modifications issued on the independent variables influence in a positive or negative manner the dependent variable, and later the independent variables were used to test the formulated hypothesis.

IV.2. The outcomes of the research

Analyzing the outcomes obtained after the tests effectuated in the statistical program SPSS, we can conclude for each hypothesis separately, the following:

No. of the	Formulated hypothesis	Outcome of the
hypothesis	r of mulated hypothesis	tests
Hypothesis no. 1	Is there a positive relation between RCI and GDP?	The relationship
Trypomests no. 1	is there a positive relation between KCr and ODF ?	is positive
Hypothesis no. 2	Is there a positive relation between RCI and the Productivity	The relationship
Trypotticsis no. 2	of work?	is positive
Hypothesis no. 3	Is there a positive relation between RCI and The Total	Insignificant
	Occupation Rate?	relation

Tabl	e no.	4.18.
------	-------	-------

- - -

Hypothesis no. 4	Hypothesis no 4 Is there a positive relation between RCI and the Research-			
Trypomesis no. 4	is positive			
Hypothesis no. 5	Do digital public services influence the governing indicator	The relationship		
Trypomesis no. 5	(ESA)?	is not positive		
Hypothesis no. 6	Does the development of the abilities of the human capital	The relationship		
Trypomests no. 0	influence the governing indicator (ESA)?	is not positive		
Hypothesis no. 7	Do the IT specialists influence the governing indicator (ESA)?	The relationship		
Trypotitesis ito. 7	Do the TT specialists influence the governing indicator (ESA):	is positive		
Uumothasia no 9	Does the use of internet in the relations with the public	The relationship		
Hypothesis no. 8	institutions influence the governing indicator (ESA)?	is not positive		
Hypothesis no. 0	Does the GDP variable influence the governing indicator	The relationship		
Hypothesis no. 9	(ESA)?	is not positive		
Hypothesis no.	Does the variable Occupation rate influence the governing	The relationship		
10	indicator (ESA)?	is positive		
Hypothesis no.	Does the variable Productivity of work influence the	The relationship		
11	governing indicator (ESA)?	is not positive		
Hypothesis no.	Does the variable Research-Development expenses influence	The relationship		
12	the governing indicator (ESA)?	is not positive		

Source: outcomes obtained by processing the data in SPS

So, it is known that the Regional Competitiveness Indicators and the regional disparities are approached differently, at the same time it is also emphasized the fact of that the absorption of the European funds in a higher percentage has a positive impact firstly on the regional competitiveness and then on the economic and social indicators.

Examining the relation between the Regional Competitiveness Indicator – RCI and GDP, it was proved that there is a positive correlation between the two variables, which means that the obtaining of a bigger percentage of the European funds generates the growth of the Gross internal product, which also positively influences the RCI.

Analyzing the relation between the Regional Competitiveness Indicator RCI and the productivity of work, the tests demonstrated that there is a positive correlation between the two variables, because of the fact that one of the objectives of the structural funds is the decrease of unemployment, which can be indirectly obtained with the growth of the productivity.

Yet, taking into account the fact that lately the indicator productivity of work registered a decrease for all the development regions from Romania and that the reduction of the work hours could influence negatively the indicator occupation of work force, a greater attention must be given to the absorption of the European funds.

Analyzing the relation between the indicator of regional competitiveness RCI and Occupation rate, the tests demonstrated the fact that there is not a significantly positive correlation between the two variables, which means that the data are not significant. The ideal situation is that in which the outcomes are significant, even if a percentage of the expenses of the European Union aim at the reduction of the disparities in the sector of occupation of the work force. The diminishing of the unemployment rate, the encouragement of the investments, the growth of the occupation degree, are a few factors which generate the economic growth.

Similarly, also in the case of the relation between the regional competitiveness indicator RCI and the Research-development expenses, the tests demonstrated that there is a significantly positive correlation between the two variables, although the development regions did not invest very much in the innovation and it offers a limited number of jobs in this field, because of the advanced technical requirements. This aspect emphasizes the importance of the absorption of the European funds and in this field of activity, in order to assure a long lasting development.

Analyzing the influence that the independent variables GDP, occupation rate, productivity of work and research-development expenses have on the Governing Indicator (ESA) – Administrative System Efficiency, after the tests effectuated in SPSS, resulted the fact that only the variable Occupation rate influences positively the ESA indicator, while the others have no influence on it.

Regarding the independent variables Digital public services, IT specialists, Use of internet in the relations with the public institutions and the Development of the abilities of the human capital, after the effectuated tests resulted the fact that only in the case of the variable IT specialists the hypothesis was confirmed, respectively, that influences the indicator regarding the administrative system efficiency ESA, demonstrates that there is no positive relationship between variables..

CHAPTER V A framework of interaction between regional development, regional competitiveness and administrative system development

Under the sign of the world's economy globalization, the concept of regional competitiveness is intensely analyzed both by the political class and also by the decisional factors, emphasizing though the regional discrepancies between various development regions, which have no policy or conceptual frame for their regulation.

An intense preoccupation for the regional competitiveness evolution was noticed lately in the context in which both the countries and the towns or the development regions make great efforts to survive on the new global market, competitive and in a continuous development. Thus, the regional discrepancies are often seen as being an intervention measure by its integration, development and cohesion policies.

V.1. Governmental competitiveness in measuring the public administration efficiency

With the help of the indicators we can measure the efficiency of the public administration, even if it is known that, depending on the state, there are differences of the efficiency degree, effectiveness and economy of the management method of the public expenses. A possible justification would be that they did not value its outcomes and did not diminish the use of the resources. The indicators which are considered relevant for the measurement of the public administration efficiency are presented in the following table:

1.	The outcomes of the reforms
2.	Executive capacity
3.	Specialization of the human capital
4.	Quality of public services
5.	On-line services supply
6.	Open data
7.	Fiscal fluctuations and their impact on the administrative system
8.	Challenges from the civil society on the administrative system
~ .	

 Table no. 5.7. Assessment indicators for the public administration efficiency

Source: https://ec.europa.eu/info/sites/info/files/file_import/european-semester_thematic factsheet_quality-public-administration_ro.pdf

The measurement of the governmental competitiveness can be made by various approaches, for example, some to reflect the qualities of a free market economy and some to punctually approach the economic indicators and the market indicators.

The necessity of the measurement of the governmental competitiveness, approached in this last chapter, appeared in the context in which the competitiveness economic indicators are specific for the developed countries, as long as for these countries even the development strategies are different in relation to those of the countries in the course of development.

Thus, the indicators are based on fields that relate directly to the governmental activity and there nine indicators, namely economy, education, health, agriculture, ICT, environment, governing, safety and infrastructure, for the countries which are not part of OCDE.

The Governmental Competitiveness Index in case of Romania had the following evolution:



Figure no. 5.5. Evolution of the Governmental Competitiveness Index

Source: personal processing of the data

Romania, as a country which is not part of OCDE, had a regress in the period 2015-2019 regarding the ranking of the Governmental Competitiveness Index for the non OCDE countries, maintaining though a relatively constant level regarding the registered score.

The governing for the countries which are not part of OCDE is founded on three subcategories, namely the lawful state, the civil society and the freedom of expression, thus, the competitiveness of the government is based on a stable political system and on a democratic civil society, and the failure of compliance to these two conditions, even for the best politicians can lead to a guaranteed failure.

The graphic evolution of the sub-indicators used for the measurement of the governmental competitiveness is presented below:





Source: personal processing of the data

The graphic presents us the progressive evolution of the sub-indicators of the governmental competitiveness which reaches the maximum in the year 2016, in the activity segment education and infrastructure, then in the year 2018, the sub-indicator safety, it registers a significant progress being followed by education and TIC in the year 2019 and then again, TIC in the year 2017.

V.2. Model of growth of the public administration efficiency

The term "governing" represents a specific segment of governmental activity which involves the citizens in the process of elaboration of the quality and conduct procedures of the employees, in return, the concept of governmental competitiveness emphasizes the efforts of the formal governing, despite its capacities. For the measurement of the governmental activity, the generally used slogan "all is equal", makes big analysis problems because of the fact that every state has a history and a different poly, social and administrative system. Thus, we propose a model of growth of the administration efficiency in general, based in a first stage on strategies of administrative reform, specific to the needs of every public institution separately.



These startegies must sustain the growth of the governmental competitiveness, implicitly the public administration efficiency by the specialization of the human resources, by improving the performed public services and by winning the citizens' trust in the institutions of the state, by eliminating the bureaucratic and political barriers, by investing in the endowing with advanced technological equipments, by the digitalization of the public services and the creation of some online platforms for the supply of public services. We consider that with this model of growth of the public administration efficiency we could monitor also the impact on the regional competitiveness.

VI. General conclusions

The regional development represents a conceptual diversity generated by a series of socio-economic factors, such as the work force, the capital, the investments, the infrastructure, the technological progress, the innovation or the administrative system. In order to define the regional development we need to understand in a first stage the concept of territorial division and the available resources which conditions it.

The specialty literature analyzed the regional development from two points of view, referring to the high standard of living and how we can eliminate the regional discrepancies, respectively the economic approach of the efficient use of resources and the identification of the instruments which can diminish the differences of development between the regions so that it creates a balance between efficiency and regional equity.

In the years that passed since the foundation of the regions in the process of development, we noticed that they were defined based on several criteria, for example, the economic, social and cultural homogeneousness, the functional coherence belonging to certain historical areas. Yet, even so, there were discrepancies between the eight development regions, especially from an economic and social point of view and also from the point of view of the real possibilities to access European funds.

The discussions and proposals regarding the regionalization must be based on regional analysis and studies, for the purpose of training the administration for such a complex process, otherwise, we risk to create new regional institutions without a clear understanding of the afferent responsibilities and duties. In the process of implementation of the regional development programs we should also take into consideration the aspects which relate to the reduction of the disparities and harmonious development of the regions and which needs mainly new programs, supplementary human and financial resources and trained people, taking into consideration the fact that the reduction of the differences must be correlated with the economic growth at national level, respectively with the growth of the regional competitiveness.

The main mission of the future regional institutions being that of offering to the public authorities, both central and local, the necessary instruments for projecting and applying the balanced regional development strategies. On long term, priority has the achievement of the objective regarding the modernization of the Romanian society in its entirety, the creation of connections between the governmental sector policies, and also the encouragement of the regional and local initiatives.

The regional development is thus regarded as an assembly of transformation and improvement actions of the territorial structures, whose main objective is represented by the creation of an economic and social environment able to align the under developed economic areas. All along the time, Romania manifested its preoccupation for the modernization of the public administration by orienting its attention to the citizens, by reducing the time for the services performance, by implementing the cost and quality standards in the essential fields of activity, such as the education and the social assistance.

In order to create a proper frame for an efficient, transparent, competitive and bureaucracy free public administration it is necessary to access in a as high percentage as possible the European funds put at our disposal by the European Commission on this segment. Analyzing the models of regional development we ascertain that they represent in fact an essential component in the instrumental mechanism which solves the inequities regarding the economic growth at the level of the development regions.

Schachter, H. L. (1989) states that the efficiency may constitute a channel of communication in the relation between citizens and public administration, because it would justify the objective related by the performance of goods and public services and it would be a resistance pole consolidated by a good governing in front of the public challenges.

Lee, D. S. defined efficiency in the context of the regional development as "a call to a productive society which should protect the needs of the workers and of their families, adding thus morality and social justice to the taylorist objectives of an efficient economy"¹⁵.

The regional development policy represents a priority for Romania, both from the point of view of the aimed objectives and of the human and financial resources involved, in the light of the essential elements of this process, respectively the regional policy and the Operational Programs which represent in fact the pylons of the balanced development of all regions, by the capitalization of the potential of regional and local development, by the concentration on the urban poles of growth and the improvement of the conditions regarding the infrastructure and the business environment.

The strategy of regional development of the European Union is implemented also in Romania by sector operational programs in the field of transport, environment and economic competitiveness, development of the administrative ability and development of human resources.

The administrative reform of public administration, although it is still in the process of development, stimulated lately the interest regarding the relation of the public administration with different aspects of competitiveness, either regional or governmental. Also, the reform of public administration is conditioned by the compatibility of the used instruments and by the modernization measures of the public administration, unitarily implemented in order to increase the efficiency of services supply.

We noticed the fact that many public institutions started to develop economic or administrative indicators, for example, governing indicators of the World's Bank (WGI) the quality indicators of the government (QoG), which show the role the government has in the development process and in the growth of the competitiveness at national level.

The size of the public administration is evaluated in relation to the staff expenses and in report with the subventions of the state in the supply of certain public services and with the size of the public administration. The judicial traditions are the essential ingredients for a good functioning of the administrative system. The lawful countries are characterized by judicial formalism and by the strict compliance to the rules, while in the common law countries the administrative procedures are more rigid.

¹⁵ Lee, D.S. (2008), *Regression discontinuity inference with specification error*, Journal of Econometrics, Volume 142, pp. 655–674.

The allocation of the components on the vertical and on the horizontal represents the frame which facilitates the functioning of the administrative system on several levels, being an expensive and complex governing, especially for the business environment.

The modern informational and communication technologies (ICT) contributed fundamentally at the elimination of several administrative, bureaucratic duties, generating mainly the considerable diminishing of the times of services and costs supply.

The human resources, by the proposed modifications, represent a plus brought to the growth of the effectiveness of the administrative staff which can face a modern administrative system, in which the orientation to the human resources can be made from the perspective of the resources necessary for the support of the staff expenses which must be diminished and from the perspective of the perspective of the personnel which is reflected in strategically elaborated policies for development, communication, specialization and motivation.

The orientation to performance implies the assessment and use of the information which reflect the quality of the performed services and has an objective the analysis of the management capacity of the public sector and making the decisions in full awareness. The orientation to services describes the good collaboration between the public administration and the citizens, by reducing the bureaucracy of the administrative services and not least, the growth of the quality of the performed services.

The institutional reorganization supposes the implementation of some market mechanisms which would facilitate the adapting of the best policies for the purpose of integrating the private sector in performing the administrative duties.

Both the economic indicators and the governing ones made progress regarding the fidelity of the transfer to the improvement of the scientific understanding, to the new approach of the competitiveness, to the way in which the government sustains clearly the competitiveness or to the met deficiencies which represent in fact new opportunities of improving the competitiveness studies and the focus on the understanding of the government's role.

Though, in order to sustain the growth of the regional competitiveness, indicators were developed, whose importance is recognized because of the fact that they brought important contributions, although the theoretic and methodological character was maintained, which constituted the fundamental base of the political measures which act depending on the specific development needs.

It is absolutely necessary to start the process of consolidation of the administration concerning the distribution of the human resources, in the implementation of an efficient control method, in the assurance of the specific information process and not last in the fundament of the economic and social policies necessary for the emphasizing of the economic growth and for the reduction of the population's poverty by the fluidization of the distribution of the national income, process which at the present is characterized by illegalities and lack of discipline.

Taking into consideration all these aspects, we proposed a model of growth of the public administration efficiency, fundamented basically on strategies whose main objective consists in the starting of the administrative reform process, also taking into account the requirements of each public institution separately.

These strategies will promote the actions which favor the governmental competitiveness, implicitly the public administration efficiency by implementing some measures which would be related to the specialization of the human resources, the improvement of the performed public services, the earning of the citizens' trust in the public institutions of the state, the elimination of the bureaucratic barriers, the simplification and actualization of the work procedures, the elimination of the influence of politics in the management of the public administration activity, the approving of the investments related to the endowment with advanced technological equipments, the digitalization of the public services and the creation of some online plaforms for the fluidization of the public services circuit.

Also, by the implementation of this model of efficiency of the public administration, we consider that the impact on the regional competitiveness could also be monitored. Porter, M. E. was the first author who proposed and sustained a model of competitiveness in which the only resource is productivity, respectively, the efficiency with which the inputs are transformed in goods and services.

Regional competitiveness must be measured by the instruments and methods specific to any development regions, taking into account also the fact that there is not a unitary assessment model which can be used as a common methodology and there are not superior or inferior assessments methods.

Competitiveness influences the efficiency of the public administration both from a financial point of view and from the point of view of the allocated time and we refer here to the expenses made with the delays the services are performed with in the public administration,

respectively the taxes with different public services or expenses with the personnel which allocate their time because of the bureaucracy in fulfilling their duties.

Thus, to have a perspective regarding the Regional Competitiveness Indicator (RCI) in Romania, within the third chapter of the work I considered it opportune to identify the level of RCI for each development region.

Starting from the idea that the regional competitiveness is an essential element of the decisional process, because the decision factors are considered analysis criteria necessary to identify the best method of calculation for the purpose of improving the level of regional competitiveness, I used the traditional macroeconomic indicators, because they correctly the level of development and the perspectives of the future, even if sometimes supplementary indicators are applied, calculated by various international organizations.

In this work of calculation of the Regional Competitiveness Indicator (RCI), I grouped the sub-indicators in three big categories, as follows:

✓ economic sub-indicators which contain GDP/inhabitant, the growth rate of GDP, the productivity of work, the net exports, the gross formation of capital, the net income per inhabitant, calculated as follows IE = (20*E1+30*E2+10*E3+20*E4+20*E5)/100;

✓ social sub-indicators which contain the dispersion of the regional occupation rate, the occupation of the work force (total), the occupation of the work force – women and the index of the average life expectancy, calculated as follows IS = (30*S1+40*S2+10*S3+20*S4)/100;

✓ technological sub-indicators which contain the research development expenses that % of GDP, the population occupied in sectors with high technology and third party education with advanced in research, calculated as follows IT = (40*T1+30*T2+30*T3)/100.

Later, I used these sub-indicators to calculate the RCI after the formula proposed by the Applied Economy Group (GEA), respectively RCI = (40*IE + 30*IS + 30*IT)/100, for the period 2012-2018.

The outcomes demonstrated the fact that at only six out of the eight development regions, RCI has a low level, of up to 38% in the period 2012-2018 and only for two development regions the value of RCI is of 50%, registered in the Region Bucharest-Ilfov in the years 2016 and 2017, and also in the Region South-Muntenia in the year 2017, which reflects a moderate level of RCI at the level of the development regions in Romania.

The growth of regional competitiveness of Romania must be encouraged with the instruments of the regional policy referring to field such as the technological progress, the innovation or the productivity of work.

In the course of the work I demonstrated the fact that talking about the regional competitiveness in Romania supposes a detailed analysis of the disparities in the circumstances in which there are very few studies which gives credibility to the process of analysis of the impact generated by the volume of the European funds on the regional competitiveness as this would imply on one hand an analysis of the absorption of the structural funds or of the regional disparities on the other hand giving a reduced importance to the aspect regarding their correlation.

Thus, we consider that the objectives followed in this research study, respectively the identification of the principles regarding the policy of regional development in Romania, the analysis and identification of the impact generated by the implementation of the European funds, and also the measure in which both the regional development and the competitiveness generate the efficiency of the public administration in Romania.

I took into consideration the formulated work hypothesis, namely if the proposed subindicators can influence the indicator regional competitiveness and if the identified subindicators can influence the indicator regarding the governmental competitiveness. Thus, analyzing the outcomes obtained after the tests effectuated in the statistical program SPSS, we concluded that each hypothesis separately confirms or is invalidated.

In the table below we will present the outcomes of the tests effectuated for the Regional Competitiveness Indicator (RCI):

Formulated hypothesis	Outcomes of the effectuated tests
Is there a positive relation between RCI and GDP?	Positive relation
Is there a positive relation between RCI and the Productivity of work?	Positive relation
Is there a positive relation between RCI and the Research- Development expenses?	Positive relation

Table no. 1

Source: outcomes obtained by processing the data in SPSS

So, from the sub-indicators proposed for testing the hypothesis regarding the Regional Competitiveness Indicator (RCI), respectively GDP, Productivity of work, Occupation rate and Research-development expenses results that only in the case of the sub-indicators GDP, Productivity of work and Research-development expenses demonstrates that there is a positive relationship between variables.

Regarding the sub-indicators used for testing the hypothesis regarding the Governmental Competitiveness Indicator (ESA), respectively, Digital public services, Development of the abilities of the human capital, IT specialists, Use of internet in the relations with the public institutions, GDP, Occupation rate, Productivity of work and Research-development expenses, we will present in the table below only the outcomes of the effectuated tests which demonstrate that the hypothesis is confirmed, as follows:

Table no. 2

Formulated hypothesis	Outcomes of the effectuated tests
Do IT specialists influence the governing indicator (ESA)?	The relationship is positive
Does the Occupation Rate influence the governing indicator (ESA)?	The relationship is positive

Source: outcomes obtained by processing the data in SPSS

Analyzing the outcomes of the hypothesis formulated in the work we demonstrate the fact that a significant effort in growing the degree of absorption of the European funds would generate a positive impact on the Regional Competitiveness Indicator (RCI) on one hand, and also on the Governmental Competitiveness Indicator (ESA), on the other hand.

We know the fact that GDP per inhabitant is the most efficient indicator used in the European Union, being the indicator that expresses the standard of living, of citizens' welfare, and also the indicator depending on which the European Commission distributes the financial allocations to the member states.

Thus, we consider that this research study answers affirmatively the questions formulated at the beginning of the work, namely: "Does the regional development contribute to the efficiency of the administrative system?", the answer being given within the second chapter of the work, by elaborating a situation regarding the complementarity, analysis instrument of the public administration efficiency, between the European programs which have as a main objective the growth of the public administration efficiency, and also the question "Does regional development contribute by means of the regional and governmental competitiveness at the public administration consolidation?", the answer being given by the outcomes of the testing the hypothesis formulated in the statistical program SPSS, respectively, the sub-indicators GDP per inhabitant, Productivity of work and Research-development expenses have a positive relation with the Regional Competitiveness Indicator (RCI), while the sub-indicators IT specialists and Occupation rate influence positively the Governmental Competitiveness Indicator (ESA).

VII. BIBLIOGRAPHY – Articles, links

- European Commission, European Regional Competitiveness Index https://ec.europa.eu/regional_policy/en/information/maps/regional_competitiveness/, accessed in October 2020.
- Hirschman, A. O. (1958), *The Strategy of Economic Development*, New Haven: Yale University Press.
- 3. Gunnar, M. (1957), Economic theory and underdeveloped regions, London, Duckworth.
- 4. Dinu, M. (2006), *Getting out of the alternative*, Theoretic and applied economy, The Academy of Economic Studies, Bucharest, p.97.
- Tizziano, A. (2011), Protection of fundamental rights: the main contribution of the European Court of Justice on the constitutional evolution of the EU, Romanian Journal of European Law, nr.6/2011, pp. 28-41.
- Pettinger, T. (2017), *Productive vs allocative efficiency*, Economics Help, http://www.economicshelp.org/blog/2412/economics/productive-vs-allocative-efficiency, accessed in May 2019.
- Pettinger, T., (2017), *Technical Efficiency Definition*, September 28 2017, Economics Help, http://www.economicshelp.org/blog/glossary/technical-efficiency/, accessed in June 2018.
- Matei, L., (ed), (2005), *European Administration Contemporary Concepts and Approaches*, The Economica Publishing House, Bucharest, Romania.
- 9. Profiroiu, M., Profiroiu, A., (2007), *The analysis framework of the performances of the public sector*, Theoretic and applied economy, pp. 44-47.
- Strategy of Communication for the Structural Instruments 2014-2020, http://poca.ro/wpcontent/uploads/2016/04/Strategia_comunicare_IS_2014-2020.pdf, accessed in September 2020.
- Pelinescu, E., Iordan, M., Chilian, M. şi Simionescu, M. (2016), *Competitiveness- Regional competitiveness in Romania*, University Publishing House.
- 12. Official Journal of the European Union, (2012), http://eurlex.europa.eu/resource.html?uri=cellar:2bf140bf-a3f8-4ab2-b506 fd71826e6da6.0001.02/DOC_2&format=PDF
- 13. Duran, M. Giorno, C. (1987), *Indicators of international Competitiveness: Conceptual aspects and Evaluation*, OECD Economic Studies N-9, pp. 149-150.

VIII. ANNEXES

Annex no. 2. The file with the implementation of the projects on Axes priority per years

Annex no. 3.

	Kolmogorov-	Smirnov	Test
--	-------------	---------	------

		ESA (Governin g)	GDP	Occupat ion rate	Producti vity of work	Develo pment expens es	Digital public services	Develop ment of the abilities of the human capital	IT special ists	Use of internet in the relations with the public institutio ns
Ν		4	4	4	4	4	4	4	4	4
Normal	Average	10.0000	64.7500	68.9750	67.6500	.6200	39.3500	17.9500	1.9000	13.5000
parameter	Deviatio	5.65685	3.77492	1.97885	4.03856	.25351	4.71063	1.24499	.21602	3.69685
s ^{a,b}	n									
Most	Absolute	.260	.171	.215	.149	.432	.184	.391	.250	.251
extreme	Positive	.260	.146	.165	.149	.432	.184	.247	.177	.172
differenc	Negative	240	171	215	140	290	145	391	250	251
es										
Kolmogor	OV-	.520	.343	.430	.299	.864	.367	.782	.500	.501
Smirnov Z	Z									
Asymp. S	ig. (2-	.949	1.000	.993	1.000	.444	.999	.573	.964	.963
tailed)										

a. Distribution of the test is normal

b. Calculated from data

Annex no. 4.

Hypothesis no. 5. Do public services predict the governing indicator?

	Inserted/eliminated variables ^a						
Model	Inserted variables	Eliminated variables	Method				
1	Digital_public_services ^b		Inserted				

a. Dependent variable: Governing

b. All requested variables were inserted

Summary of the model ^b						
Model	R	R Square	Adjusted R Square	Std. Estimation error		
1	.886 ^a	.784	.677	3.21724		

a. Predictors: (Constant), Digital_public_services

b. Dependent variable: Governing

ANOVA ^a									
Model Square sum Df Square avera					F	Sig.			
	Regression	75.299	1	75.299	7.275	.114 ^b			
1	Residual	20.701	2	10.351					
	Total	96.000	3						

a. Dependent variable: Governing

b. Predictors: (Constant), Digital_public_services

	Coefficients ^a										
Model		Non-stan	dard coefficients	Standard coefficients		Sig.					
		B Std. Error		Beta	t						
1	(Constant)	51.850	15.599		3.324	.080					
	Digital_public_services	-1.064	.394	886	-2.697	.114					

Residual statistics ^a									
	Minimum	Maximum	Average	Std. Deviation	Ν				
Estimated value	3.9910	15.4772	10.0000	5.00995	4				
Std. Estimated value	-1.199	1.093	.000	1.000	4				
Standard error of anticipated value	1.750	2.748	2.232	.511	4				
Adjusted estimated value	-1.4279	13.5507	7.9964	6.55113	4				
Residual	-2.39297	2.52276	.00000	2.62686	4				
Std. Residual	744	.784	.000	.816	4				
Stud. Residual	906	1.322	.206	1.221	4				
Residual erase	-3.55065	7.42794	2.00365	6.12207	4				
Stud. Residual erase	834	2.639	.684	1.716	4				
Mahal. Distance	.138	1.439	.750	.663	4				
Cook's distance	.132	1.944	.972	.942	4				

Centered value of the lever	.046	.480	.250	.221	4
-----------------------------	------	------	------	------	---



Annex no. 5.

Hypothesis no. 6. Does the development of the abilities of the human capital influence the governing indicator?

	Inserted/eliminated variables ^a									
Model	Inserted variables	Eliminated variables	Method							
1	Development of the abilities of the human capital		Inserted							

a. Dependent variable: Governing

b. All requested variables were inserted

	Summary of the model ^b									
Model	R	R Square	Adjusted	R Square	Std. Estimation error					
1	.947ª	.896	.844		2.23366					

a. Predictors: (Constant), Development of the abilities of the human capital

b. Dependent variable: Governing

ANOVA ^a									
Model		Square sum	Df	Square average	F	Sig.			
1	Regression	86.022	1	86.022	17.241	.053 ^b			
	Residual	9.978	2	4.989					
	Total	96.000	3						

b. Predictors: (Constant), Development of the abilities of the human capital

	Coefficients ^a										
Model		Non-standard coefficients		Standard coefficients							
		В	Std. Error	Beta	Т	Sig.					
1	(Constant)	87.204	18.627		4.682	.043					
	Development of the	-4.301	1.036	947	-4.152	.053					
	abilities of the human										
	capital										

a. Dependent variable: Governing

Residual statistics ^a									
	Minimum	Maximum	Average	Std. Deviation	N				
Ţ	6.3441	17.9570	10.0000	5.35480	4				
Std. Estimated value	683	1.486	.000	1.000	4				
Standard error of anticipated value	1.210	2.218	1.526	.470	4				
Adjusted estimated value	6.5463	14.9231	9.2426	3.94702	4				
Residual	-2.06452	2.36559	.00000	1.82378	4				
Std. Residual	924	1.059	.000	.816	4				
Stud. Residual	-1.100	1.280	.036	.985	4				
Residual erase	-2.92237	3.45369	.75739	3.05374	4				
Stud. Residual erase	-1.237	2.125	.216	1.402	4				
Mahal. Distance	.131	2.208	.750	.983	4				
Cook's distance	.014	.936	.394	.391	4				
Centered value of the lever	.044	.736	.250	.328	4				



Annex no. 6.

	Inserted/eliminated variables ^a									
Model	Inserted variables	Eliminated variables	Method							
1	IT specialists ^b		Inserted							

Hypothesis no. 7. IT specialists influence the governing indicator ESA

a. Dependent variable: Governing

b. All requested variables were inserted

	Summary of the model ^b								
Model R R Square Adjusted R Square Square Std. Estimation error									
1	.982ª	.964	.946	1.30931					

a. Predictors: (Constant), IT_Specialists

b. Dependent variable: Governing

	ANOVA ^a										
		Squara sum		Square							
Model		Square sum	ui	average	F	Sig.					
1	Regression	92.571	1	92.571	54.000	.018 ^b					
	Residual	3.429	2	1.714							
	Total	96.000	3								

a. Dependent variable: Governing

b. Predictors: (Constant), IT_Specialists

	Coefficients ^a										
Model		Non-stand	lard coefficients	Standard coefficients							
		В	Std. Error	Beta	Т	Sig.					
1	(Constant)	58.857	6.681		8.810	.013					
	IT_Specialists	-25.714	3.499	982	-7.348	.018					

Residual statistics ^a											
				Std.							
	Minimum	Maximum	Average	Deviation	Ν						
Std. Estimated value	4.8571	17.7143	10.0000	5.55492	4						
Standard error of anticipated value	926	1.389	.000	1.000	4						
Adjusted estimated value	.655	1.237	.898	.260	4						
Residual	3.5385	15.3333	9.2443	4.88199	4						
Std. Residual	-1.42857	1.14286	.00000	1.06904	4						
Stud. Residual	-1.091	.873	.000	.816	4						
Residual erase	-1.325	1.281	.156	1.117	4						

Stud. Residual erase	-2.10526	2.66667	.75574	2.25964	4
Mahal. Distance	-2.673	2.138	.000	2.000	4
Cook's distance	.000	1.929	.750	.866	4
Centered value of the lever	.000	1.852	.804	.799	4
Std. Estimated value	.000	.643	.250	.289	4



Annex no. 7.

Hypothesis no. 8. Does the use of internet in the relations with the public institutions influence the governing indicator (ESA)?

	Inserted/eliminated variables ^a								
Model	Inserted variables	Eliminated variables	Method						
1	Use of internet in the relation with the public institutions ^b		Inserted						

a. Dependent variable: Governing

b. All requested variables were inserted

	Summary of the model ^b								
	Adjusted R								
Model	R	R Square	Square	Std. Estimation error					
1	.829ª	.687	.530		3.87613				

a. Predictors: (Constant), Use of internet in the relation with the public institutions

	ANOVA ^a										
Model		Square sum	Df	Square average	F	Sig.					
1	Regression	65.951	1	65.951	4.390	.171 ^b					
	Residual	30.049	2	15.024							
	Total	96.000	3								

b. Predictors: (Constant), Use of internet in the relation with the public institutions

	Coefficients ^a											
		Non-standard coefficients		Standard coefficients								
Model		В	Std. Error	Beta	t	Sig.						
1	(Constant)	-7.122	8.399		848	.486						
	Use of internet in the	1.268	.605	.829	2.095	.171						
	relation with the public											
	institutions											

a. Dependent variable: Governing

R	esidual statis	tics ^a			
		Std.			
	Minimum	Maximum	Average	Deviation	Ν
Std. Estimated value	4.2927	14.4390	10.0000	4.68868	4
Standard error of anticipated value	-1.217	.947	.000	1.000	4
Adjusted estimated value	2.140	3.343	2.703	.521	4
Residual	6667	15.3061	8.4413	6.66311	4
Std. Residual	-3.17073	3.56098	.00000	3.16485	4
Stud. Residual	818	.919	.000	.816	4
Residual erase	-1.058	1.368	.133	1.169	4
Stud. Residual erase	-5.30612	7.89189	1.55872	6.69000	4
Mahal. Distance	-1.128	3.800	.734	2.194	4
Cook's distance	.165	1.482	.750	.573	4
Centered value of the lever	.092	1.137	.677	.524	4
Std. Estimated value	.055	.494	.250	.191	4



Annex no. 8.

	Inserted/eliminated variables ^a								
Model	Inserted variables	Eliminated variables	Method						
1	GDP ^b		Inserted						

Hypothesis no. 9. Does GDP variable influence the governing indicator (ESA)?

a. Dependent variable: Governing

b. All requested variables were inserted

	Summary of the model ^b								
	Adjusted R								
Model	R	R Square	Square	Std. Estimation error					
1	.937ª	.877	.816		2.42791				

a. Predictors: (Constant), GDP

b. Dependent variable: Governing

ANOVA ^a											
Model		Square sum	df	Square average	F	Sig.					
1	Regression	84.211	1	84.211	14.286	.063 ^b					
	Residual	11.789	2	5.895							
	Total	96.000	3								

a. Dependent variable: Governing

b. Predictors: (Constant), GDP

Coefficients ^a										
	Non-standard coefficient Standard coefficients									
Model		В	Std. Error	Beta	Т	Sig.				
1	(Constant)	100.877	24.074		4.190	.053				
	GDP	-1.404	.371	937	-3.780	.063				

Residual statistics ^a									
				Std.					
	Minimum	Maximum	Average	Deviation	Ν				
Std. Estimated value	4.0351	16.6667	10.0000	5.29813	4				
Standard error of anticipated value	-1.126	1.258	.000	1.000	4				
Adjusted estimated value	1.245	2.141	1.669	.463	4				
Residual	.0000	12.0000	8.1440	5.56743	4				
Std. Residual	-2.24561	1.96491	.00000	1.98238	4				
Stud. Residual	925	.809	.000	.816	4				
Residual erase	-1.095	1.414	.245	1.234	4				
Stud. Residual erase	-3.14754	6.00000	1.85597	4.83630	4				

Mahal. Distance	-1.224	1.453	051	1.369	3
Cook's distance	.039	1.583	.750	.791	4
Centered value of the lever	.046	2.375	1.179	1.206	4
Std. Estimated value	.013	.528	.250	.264	4



Annex no. 9.

Hypothesis no. 10. Does Occupation rate variable influence the governing indicator (ESA)?

Inserted/eliminated variables ^a								
		Eliminated						
Model	Inserted variables	variables	Method					
1	Occupation_rate ^b		Inserted					

a. Dependent variable: Governing

b. All requested variables were inserted

	Summary of the model ^b								
			Adjusted R						
Model	R	R Square	Square	Std. Estimation error					
1	.977ª	.954	.931	1.48655					

a. Predictors: (Constant), Occupation_rate

b. Dependent variable: Governing

ANOVA ^a										
Model		Square sum	df	Square average	F	Sig.				
1	Regression	91.580	1	91.580	41.442	.023 ^b				
	Residual	4.420	2	2.210						
	Total	96.000	3							

a. Dependent variable: Governing

b. Predictors: (Constant), Occupation_rate

Coefficients ^a										
		Non-stand	Non-standard coefficients Standard coefficients							
Model		В	Std. Error	Beta	t	Sig.				
1	(Constant)	202.584	29.925		6.770	.021				
	Occupation_r	-2.792	.434	977	-6.438	.023				
	ate									

	Residual statistics ^a									
				Std.						
	Minimum	Maximum	Average	Deviation	Ν					
Std. Estimated value	4.6252	17.4688	10.0000	5.52510	4					
Standard error of anticipated value	973	1.352	.000	1.000	4					
Adjusted estimated value	.747	1.378	1.022	.285	4					
Residual	2.8364	14.2296	8.9532	4.79191	4					
Std. Residual	-1.41732	1.37476	.00000	1.21376	4					
Stud. Residual	953	.925	.000	.816	4					
Residual erase	-1.159	1.403	.204	1.182	4					
Stud. Residual erase	-2.09302	3.77039	1.04679	2.86642	4					
Mahal. Distance	-1.429	7.853	1.764	4.170	4					
Cook's distance	.008	1.827	.750	.823	4					
Centered value of the lever	.024	2.763	1.097	1.233	4					
Std. Estimated value	.003	.609	.250	.274	4					

a.Dependent variable: Governing



Annex no. 10.

Hypothesis no. 11. Does Productivity of work variable influence the governing indicator (ESA)?

	Inserted/eliminated variables ^a							
Model	Inserted variables	Eliminated variables	Method					
1	Productivity_of_work ^b		Inserted					

b. All requested variables were inserted

	Summary of the model ^b								
			Adjusted R						
Model	R	R Square	Square	Std. Estimation error					
1	.887ª	.787	.680		3.19769				

a. Predictors: (Constant), Productivity_of_work

b. Dependent variable: Governing

ANOVA ^a									
Model		Square sum	df	Square average	F	Sig.			
1	Regression	75.550	1	75.550	7.389	.113 ^b			
	Residual	20.450	2	10.225					
	Total	96.000	3						

a. Dependent variable: Governing

b. Predictors: (Constant), Productivity_of_work

	Coefficients ^a									
		Non-stan	dard coefficients	Standard coefficients						
Model		B Std. Error Beta		Beta	t	Sig.				
1	(Constant)	94.061	30.967		3.037	.093				
	Productivity_of_work	-1.243	.457	887	-2.718	.113				

Residual statistics ^a								
				Std.				
	Minimum	Maximum	Average	Deviation	Ν			
Std. Estimated value	3.8492	15.6538	10.0000	5.01829	4			
Standard error of anticipated value	-1.226	1.127	.000	1.000	4			
Adjusted estimated value	1.683	2.771	2.207	.570	4			
Residual	-2.6298	12.7479	7.6243	6.96084	4			
Std. Residual	-2.57102	2.34621	.00000	2.61090	4			
Stud. Residual	804	.734	.000	.816	4			
Residual erase	946	1.347	.241	1.244	4			
Stud. Residual erase	-3.55618	8.62977	2.37573	6.41890	4			
Mahal. Distance	899	3.134	.951	2.002	4			

Cook's distance	.081	1.502	.750	.741	4
Centered value of the lever	.110	2.734	1.178	1.270	4
Std. Estimated value	.027	.501	.250	.247	4



Annex no. 11.

Hypothesis no. 12. Does Research-development expenses variable predict the governing

indicator?

Inserted/eliminated variables ^a						
Model	Inserted variables	Eliminated variables	Methods			
1	Development_expens es ^b		Inserted			

a. Dependent variables: Governing

b. All requested variables were inserted

Summary of the model ^b							
			Adjusted R				
Model	R	R Square	Square	Std. Estimation errors			
1	.502ª	.252	122		5.99170		

a. Predictori: (Constant), Development_expenses

b. Dependent variable: Governing

ANOVA ^a								
Model		Square sum	df	Square average	F	Sig.		
1	Regression	24.199	1	24.199	.674	.498 ^b		
	Residual	71.801	2	35.900				
	Total	96.000	3					

a. Dependent variable: Governing

b. Predictors: (Constant), Development_expenses

Coefficients ^a							
		Non-standard coefficients		Standard coefficients			
Model		В	Std. Error	Beta	t	Sig.	
1	(Constant)	16.946	8.975		1.888	.200	
	Development_expens	-11.203	13.646	502	821	.498	
	es						

Residuale statistics ^a							
				Std.			
	Minimum	Maximum	Average	Deviation	Ν		
Std. Estimated value	5.7427	11.5685	10.0000	2.84014	4		
Standard error of anticipated value	-1.499	.552	.000	1.000	4		
Adjusted estimated value	3.414	5.989	4.093	1.266	4		
Residual	-242.0000	13.9140	-52.0038	126.68738	4		
Std. Residual	-5.34440	6.43154	.00000	4.89220	4		
Stud. Residual	892	1.073	.000	.816	4		
Residual erase	-1.085	1.333	.327	1.208	4		
Stud. Residual erase	-7.91398	248.00000	62.00381	124.21904	4		
Mahal. Distance	-1.197	2.824	1.063	2.074	4		
Cook's distance	.224	2.247	.750	.999	4		
Centered value of the lever	.018	855.703	214.122	427.721	4		
Std. Estimated value	.075	.749	.250	.333	4		

