

STUDY ON THE UNIVERSITY EDUCATION SYSTEM IN THE CONTEXT OF THE CRISIS GENERATED BY THE CORONAVIRUS

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ABSTRACT

The education is one of the most important subject of these days for our society. At the international level, it is about competitiveness. The countries are fight for sales markets, for investments and for attracting investors. We analyze the most important indicators on the tertiary education system: the total number of students, the total number of graduates, the total number of teaching staff, the total number of graduates by sex and by fields of education. We realize an econometric model between the total number of students, GDP from education and health and the total number of teaching staff from tertiary education. We recommended some measures for development of education system.

KEYWORDS: *education, human capital investment, policy.*

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1. INTRODUCTION

Fullan M. proposes as an educational strategy: focusing on the individual (Fullan, 1993). From Friedman theory, the state intervenes in an inefficient way in the educational system (Friedman, 1995, p.87). The investment of a financial nature in supporting this type of system proves to be useless, because from the children perspective a beneficial development on their bodies and physical condition (Staicu, 2013).

The author also refers to the differences between the main existing social categories: one of the rich people and one of the poor people (Zamyatin, 2012, p. 30). There is a rather great resemblance of education in the Romanian system to that in the American system. Recently, when studying how parents carried for their children, it was found that this particularly influenced reading differently for low-income and, respectively, high-income families (Darling, 2010).

Parents are constrained by financial problems by income to contribute to their children's education. The educational system is closely linked to the quality of the life. Since the 1970 s, the opinion of the experts in education has been that improving education is a necessary condition for high living standards (Corrales, 1999).

The main objective of the paper is to analyze the education system in Romania between 1990 and 2020. We used a linear multiple regression model for estimate the total number of students.

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2. THE ANALYSIS OF THE HIGHER EDUCATION IN ROMANIA BETWEEN 1990 AND 2020

The average increase of total number of undergraduates and post-graduated students between 1990 and 2020 was 350489 persons (with 3.51%). The number of undergraduates and post-graduated students increases from 192081 persons in 1990/1991 to 543289 persons in 2019/2020.

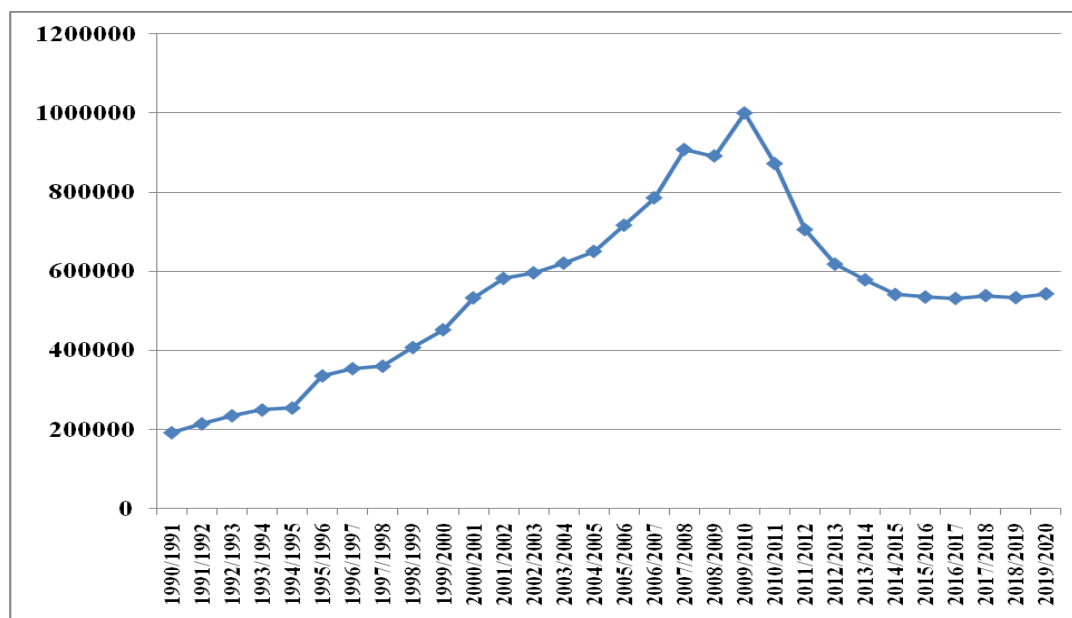


Figure 1. Evolution of total number of students between 1990 and 2020

Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019.
 Chapter 8 „Education”

The average increase of full-time students between 1990 and 2020 was 76014 persons (with 9.95%). The number of full-time students increases from 136032 persons in 1990/1991 to 496194 persons in 2019/2020.

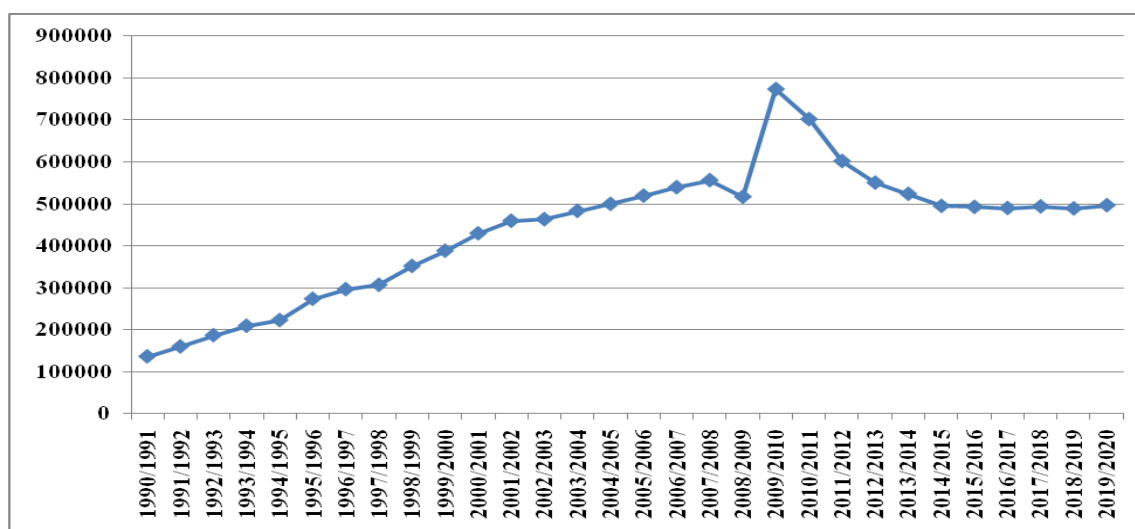


Figure 2. Evolution of total number of students from full-education between 1990 and 2020

Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019.
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The average decrease of number of students from evening classes education between 1990 and 2020 was 45868 persons (with 26%). The number of students from evening classes education decreases from 45894 persons in 1990/1991 to 26 persons in 2015/2016.

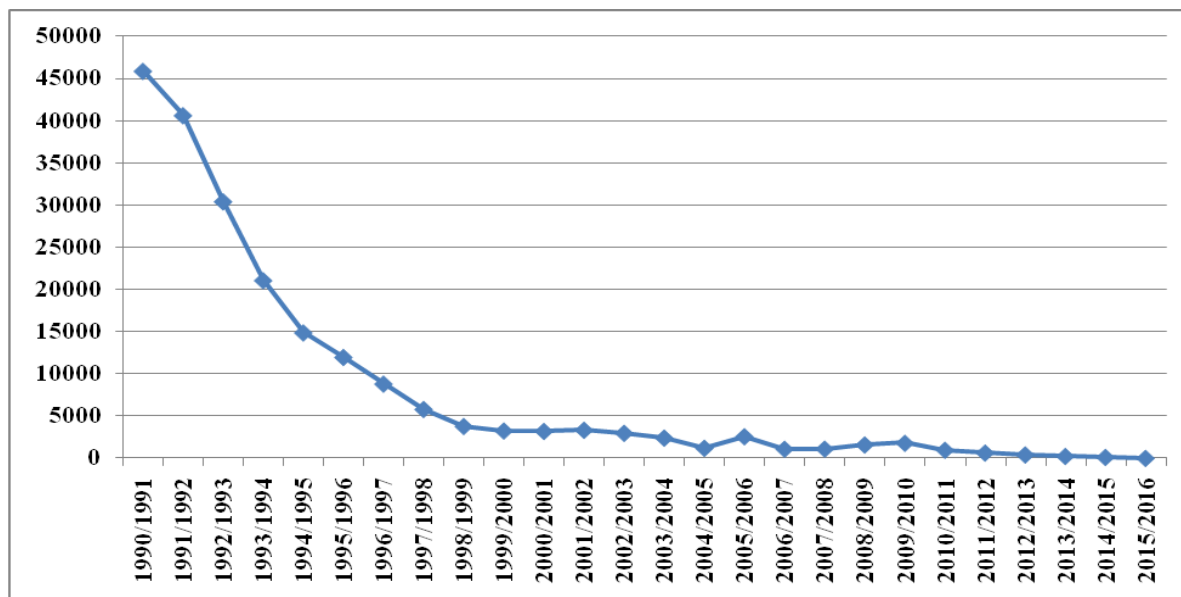


Figure 3. Evolution of total number of students from evening classes education between 1990 and 2020

Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019. Chapter 8 „Education”

The average increase of number of students from part-time attendance education between 1990 and 2020 was 9500 persons (with 2.18%). The number of students from part-time attendance education increases from 10884 persons in 1990/1991 to 20384 persons in 2019/2020.

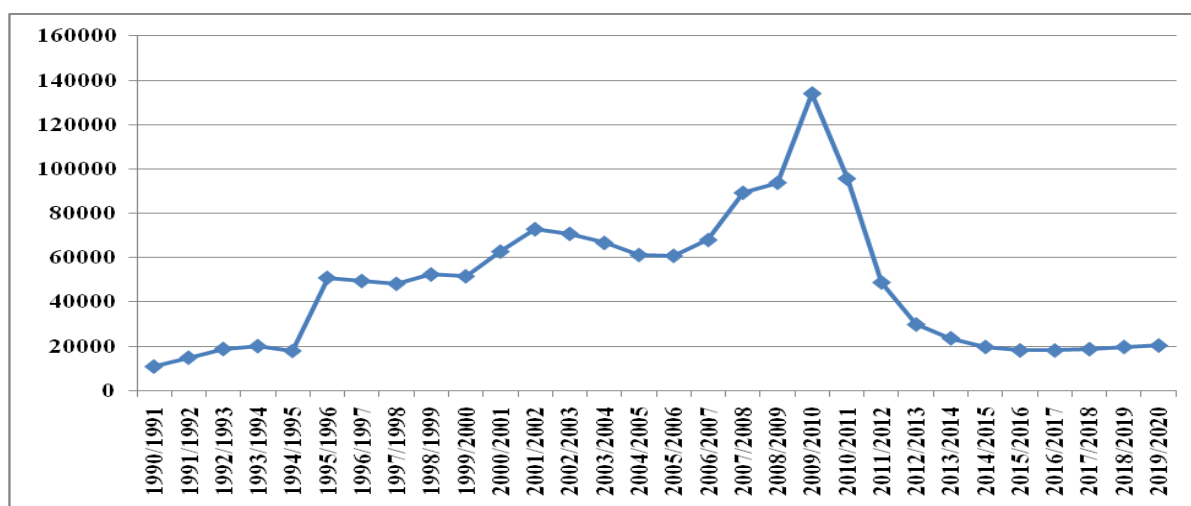


Figure 4. Evolution of total number of students from part-time attendance education between 1990 and 2020

Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019. Chapter 8 „Education”

The average increase of number of students from learning at distance between 1999 and 2020 was 16775 persons (with 5.06%). The number of students from learning at distance increases from 9946 persons in 1999/2000 to 26721 persons in 2019/2020.

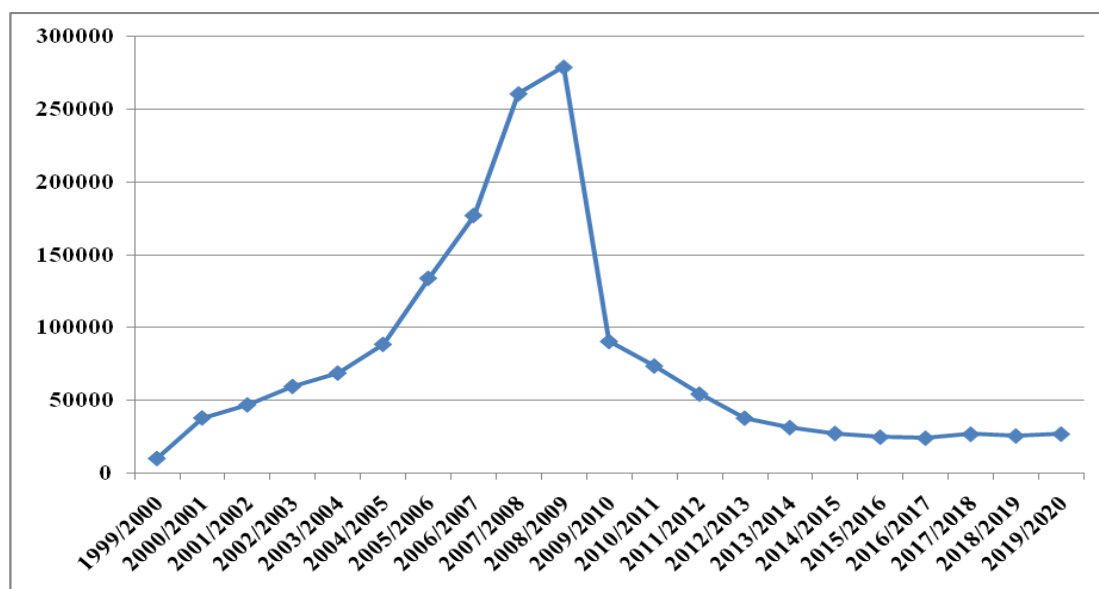


Figure 5. Evolution of total number of students from learning at distance between 1990 and 2020

Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019. Chapter 8 „Education”

The average increase of number of teaching staff from tertiary education between 1990 and 2020 was 12502 persons (with 2.23%). The number of teaching staff from tertiary education increases from 13927 persons in 1990/1991 to 26429 persons in 2019/2020.

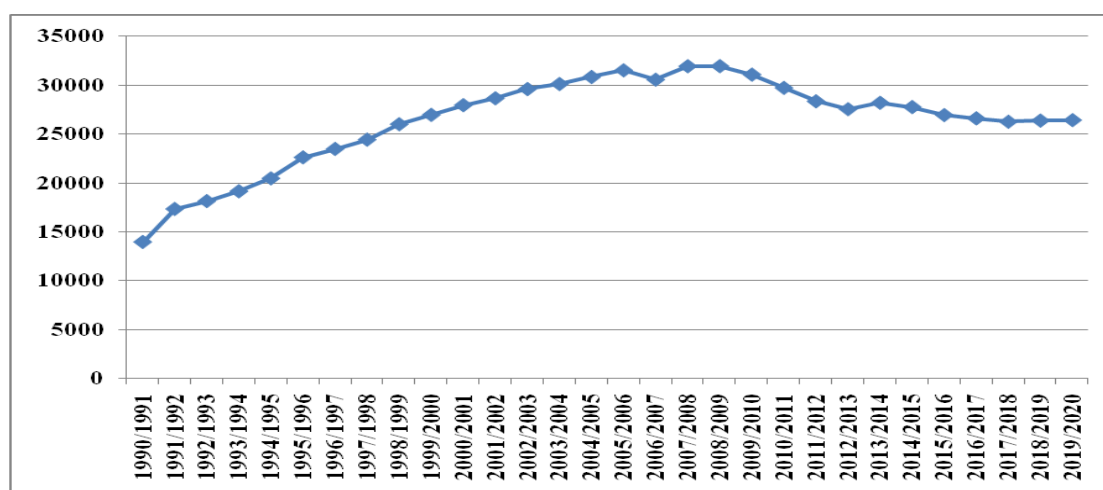


Figure 6. Evolution of total number of teaching staff from tertiary education between 1990 and 2020

Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019. Chapter 8 „Education”

The total rate of students per 10000 inhabitants increases for 83 ‰ in 1990 to 280‰ in 2020.

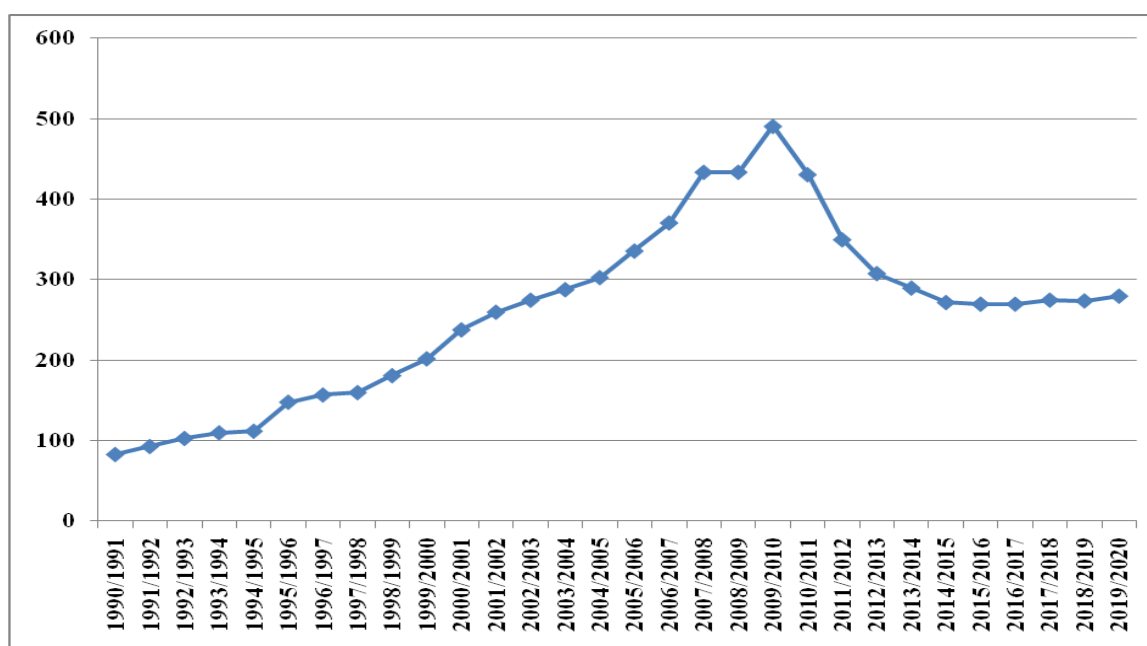


Figure 7. Evolution of total rate of students per 10000 inhabitants between 1990 and 2020
 Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019.
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The structure of total number of students does not vary too much from year to year. The structure of teaching staff for female increases from 27.98% in 1990 to 51.73% in 2020. The number of teaching staff by tertiary education (male) increases for 10030 persons in 1990 to 12758 persons in 2020. The number of teaching staff by tertiary education (female) increases for 3897 persons in 1990 to 13761 persons in 2020.

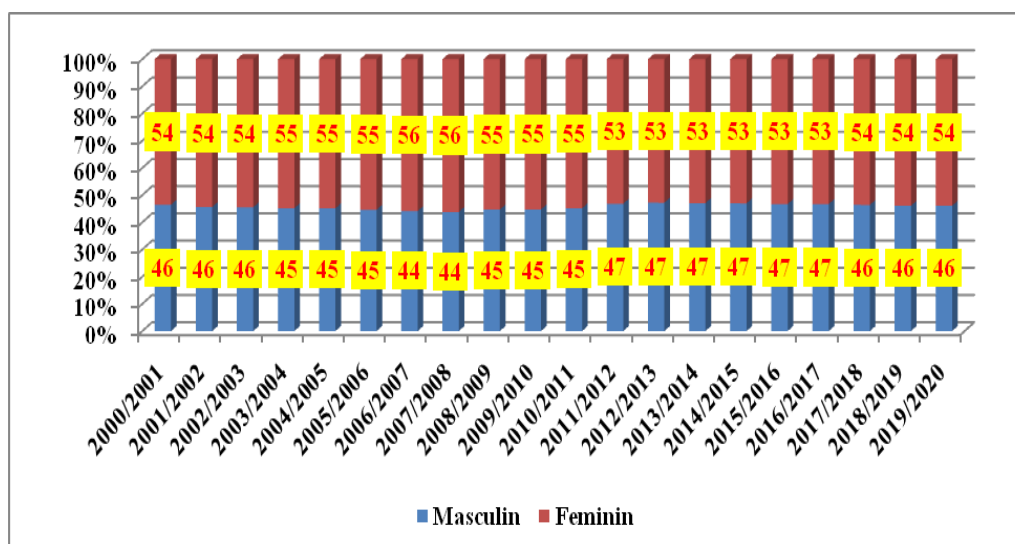


Figure 8. Evolution of total number of students by sex between 2000 and 2020
 Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019.
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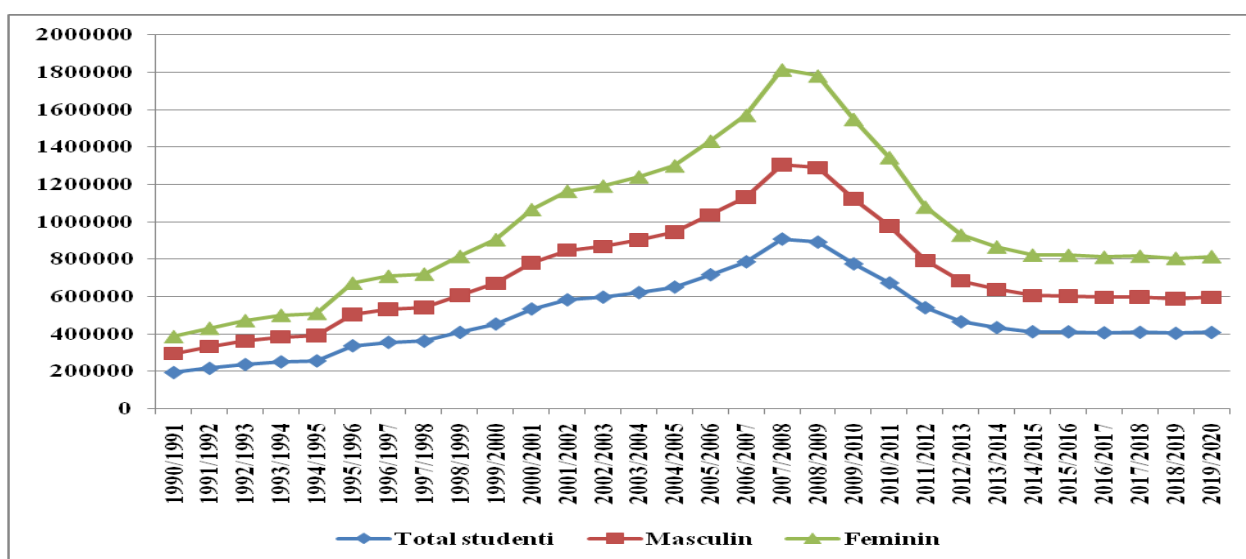


Figure 9. Evolution of total number of students by sex between 1990 and 2020

Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019.
 Chapter 8 „Education”

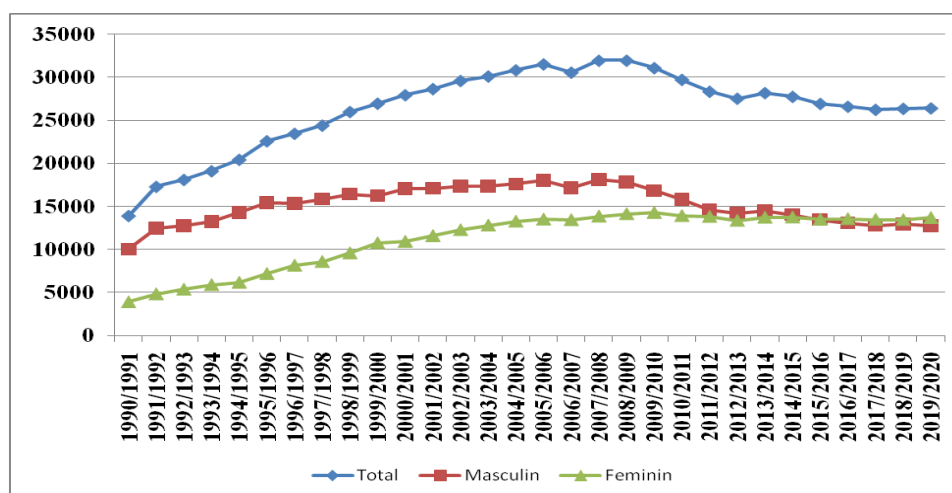


Figure 10. Evolution of total number of teaching staff on tertiary education by sex between 1990 and 2020

Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019.
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The average increase of number of graduates from tertiary education between 1990 and 2020 was 98832 persons (with 48.67%). The number of graduates from tertiary education increases from 25927 persons in 1990/1991 to 124759 persons in 2019/2020.

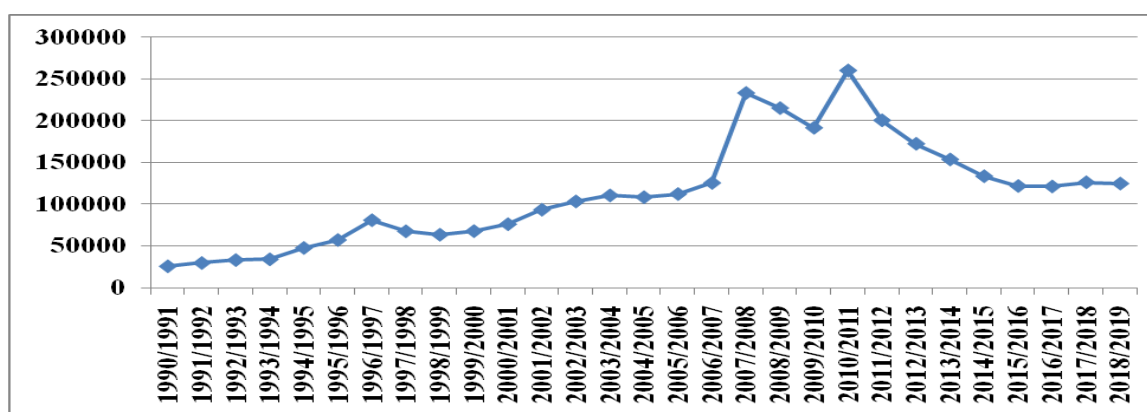


Figure 11. Evolution of total number of graduates on tertiary education between 1990 and 2020

Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019. Chapter 8 „Education”

The structure of number of graduates from tertiary education from education increases from 2.63% in 2014/2015 to 3.49% in 2019/2020. The structure of number of graduates from tertiary education from arts and humanities decreases from 9.15% in 2014/2015 to 8.92% in 2019/2020. The structure of number of graduates from tertiary education from social science increases from 8.58% in 2014/2015 to 9.04% in 2019/2020. The structure of number of graduates from tertiary education from business, administration and law decreases from 25.3% in 2014/2015 to 24.11% in 2019/2020. The structure of number of graduates from tertiary education from natural science decreases from 5.34% in 2014/2015 to 4.37% in 2019/2020.

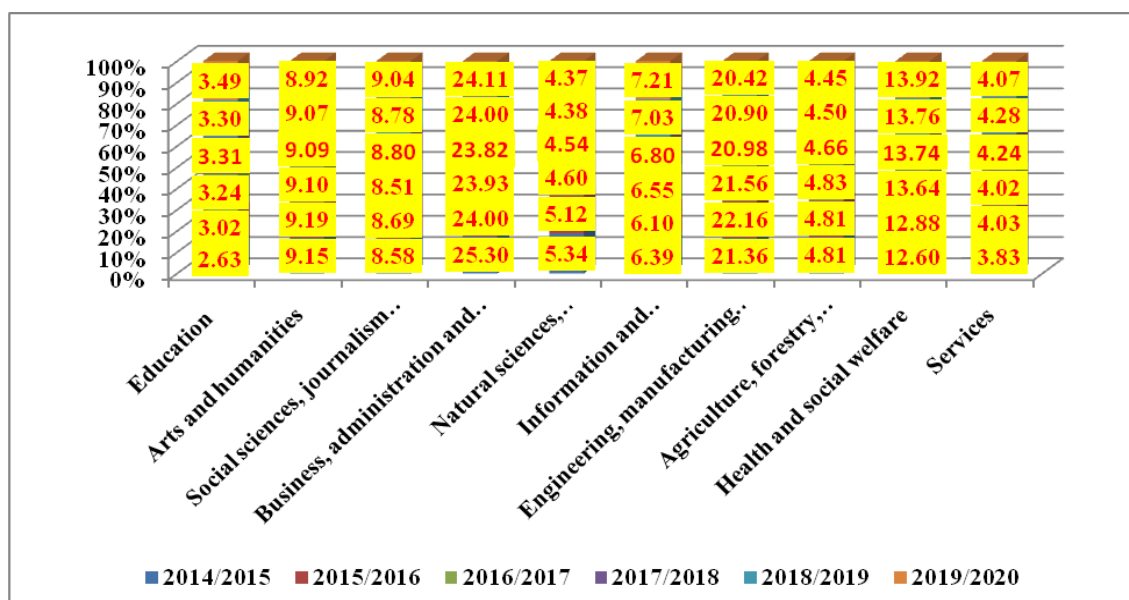


Figure 12. Evolution of total number of graduates on tertiary education between 1990 and 2020

Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019. Chapter 8 „Education”

The structure of number of graduates from tertiary education from information increases from 6.39% in 2014/2015 to 7.21% in 2019/2020. The structure of number of graduates from tertiary education

from engineering, manufacturing and construction decreases from 21.36% in 2014/2015 to 20.42% in 2019/2020.

The structure of number of graduates from tertiary education from agriculture, forestry, fisheries and veterinary science decreases from 4.81% in 2014/2015 to 4.45% in 2019/2020. The structure of number of graduates from tertiary education from health and social welfare increases from 3.83% in 2014/2015 to 4.07% in 2019/2020.

The average increase of total value of gross domestic product between 1999 and 2020 was 28674.6 millions euro (with 12.8%). The total value of GDP from education, health and public administration increases from 2828.24 millions euro in 1999 to 31502.84 millions euro in 2019.

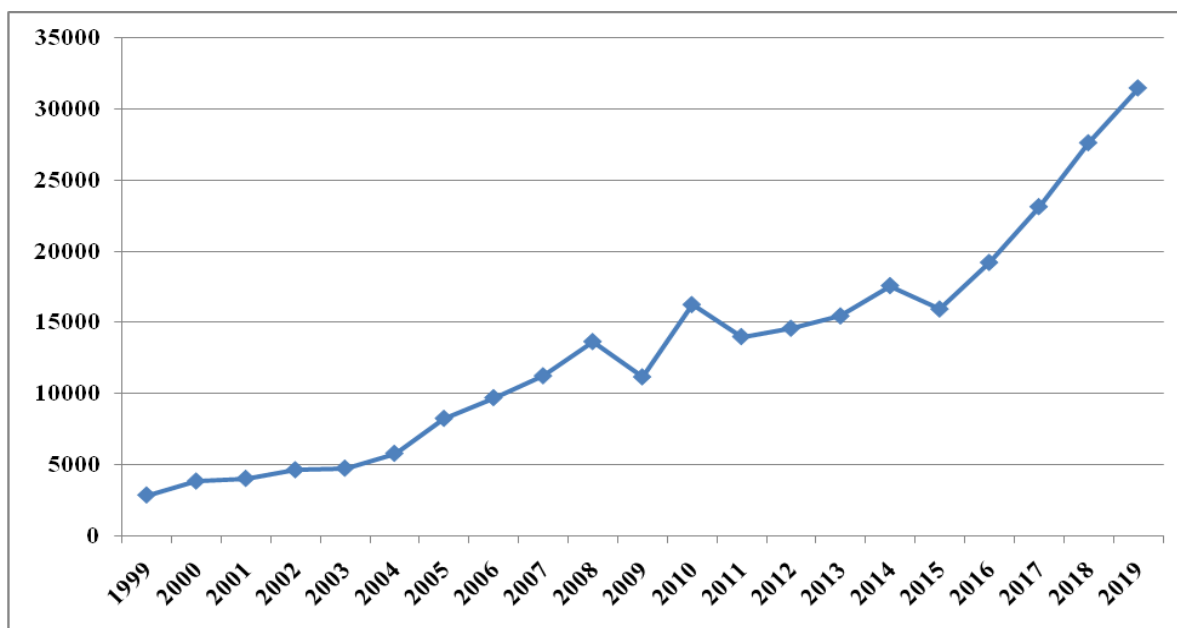


Figure 13. Evolution of total value of gross domestic product (GDP) between 1999 and 2019

Source: National Institute of Statistics, Romanian Statistical Yearbook. Time Serie 1990-2019.

Chapter 11 „National Accounts”

3. RESEARCH METHODOLOGY

We use a linear model regression for analyze the relationship between total number of students , GDP from education and health and the total number of teaching staff from tertiary education. The coefficient of determination is 0.30 (the multiple model of regression explains in proportion of 30% the variation of GDP from education). The multiple regression model is linear and significant statistically.

The equation of the multiple regression model is:

$$\text{GDP from education} = 121146.4 - 4.28 * \text{Teaching Staff from tertiary education} + 0.027 * \text{Total number of students}.$$

The coefficients are statistically significant.

If the number of teaching staff from tertiary education increases with one person, the value of GDP from education, public administration and health will decrease with 4.28 millions persons (the total number of students will be constant).

If the total number of students increases with one person, the value of GDP from education, public administration and health will increase with 0.027 million euro (the total number of teaching staff from tertiary education will be constant).

The model does not present autocorrelation.

4. CONCLUSIONS

The strategy that we proposed for the Romanian education system is based due to the Finland. In Finland the reform was successful. The Romanian education system have more difficulties. In Romania, the students study more theory and not so more practice.

In Romania, no investments are not made in education. The goal of education is moral The young people must be involved in practice because it is a great difference between the field that they graduate and the area of the job that they will want to practice.

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