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THE MANNER IN WHICH THE PROFESSIONAL STATUS OF INDIVIDUALS INFLUENCES THE NATURAL MOBILITY OF THE ROMANIAN POPULATION

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ABSTRACT
The purpose of this paper is to carry out an analysis of the manner in which the professional status of individuals influences the mobility of the Romanian population. In order to reach this objective we studied the scientific literature which attempts to define labour market, active population, employed population and the unemployed. Within the case study carried out for this paper we started from the idea that the professional status influences the natural mobility of the population and we set the following independent variables: the employment and the unemployment rate in Romania. In order to determine whether there is a relation between the professional status of individuals and the natural mobility of the population in Romania we chose three large sectors for the dependent variables: marriage rate, divorce rate and birth rate. The statistical data were taken from the Romanian National Institute of Statistics, and they refer to a period of 24 years, namely between 1991 and 2014. The evolution of the employment and the unemployment rates over the 24 years were presented in graphical form using the Microsoft Excel, while the descriptive statistics and the value of the coefficients which analyse the presence or absence of certain correlations were done with the statistical software SPSS 17 (Statistical Package for Social Sciences). The conclusions show that the increase in the number of individuals who have a job will also cause an increase in the number of marriages, while unemployment rate does not influence marriage rate.

KEYWORDS: *Unemployment rate, Employment rate, Romania, Natural increase*

JEL CLASSIFICATION: *J12, J13*

1. INTRODUCTION

Population mobility, as a response to the change in the spatial distribution of resources, will affect their individual performance and, in turn, the demography of the population (Gaillard, et al., 2010). Inevitably, population mobility influences the labour market. Within this paper we intended to analyse the manner in which the professional status of individuals influences the natural mobility of the Romanian population. In order to reach this aim we will examine the scientific literature which attempts to define labour market, active population, employed population and the unemployed.

2. REVIEW OF THE SCIENTIFIC LITERATURE

The labour market `represents an important component for the entire economic system and the social and economic development.` The labour market is under permanent change, yet at the same time it is one of the markets with a high degree of rigidity (Hordău & Toader, 2013).

An essential component of the mechanism which ensures the functioning of the labour market is the job offer. This represents the quantity of labour that the active population, available for working, is willing to perform at various salary levels, being expressed in the demand for jobs. The size of the labour force is basically determined by the size of the population that can and is willing to work, and the number of hours each individuals assigns to his/her job.

A second component of the labour market is represented by the job resources, which in fact represent the source which determines the flux of job offers. These represent the most numerous and most important part of a country's population, being made up of all the individuals who, through their biological, physical and intellectual characteristics, can directly and permanently participate in a socially and economically useful activity (Constantin, 2012).

There are a series of approaches of labour force in the scientific literature, such as the term human capital. Thus, as early as 1776 Adam Smith included human capital in the definition he provided for fixed capital. Human capital comprises the acquired useful qualifications of all inhabitants or members of society. The acquisition of these qualifications through supporting the one who acquires them during his/her education, study or apprenticeship implies real costs, which represent the fixed capital, materialized, so to speak, in this individual. (Smith, 1937).

Starting with the '60s, many papers highlighted the importance of the educated individual for the economic development of states. A series of theories appeared regarding human resources and human capital. Thus, the importance of the human resource is highlighted, alongside the material resources and the capital. Human beings are active agents who acquire capital, exploit the natural resources, build social, economic and political organisations, and promote national development. Obviously, a country which is not capable of developing the talents and knowledge of its people and use them efficiently in the national economy will not be able to develop anything else (Harbison, 1973).

The size of the job resources is under the influence of two categories of factors:
- demographic factors, which refer to the birth rate, death rate, life expectancy, migration etc.;
- social and economic factors, such as the age limit of human resources (both the inferior one, and especially the superior one), which are influenced by the level of economic development, the labour legislation in each country, and especially the legislation regarding retirement.

When determining the total job resources (TJR) a nation's economy possesses, the following variables are taken into account:
- the population at the legal employment age, represented by the individuals ranging between the inferior and the superior employment age limit, as established within the labour legislation in each country, usually discriminating between men and women; we will consider this to be PEA;
- the active population beyond the employment age (APBEA); here young people under the legal working age and people still working after the retirement age are included;
- the population at employment age, yet with some invalidity caused by occupational diseases, workplace accidents etc. (PI).

Thus (Constantin, 2012):

$$TJR = PEA + APBEA - PI$$

Starting from these variables we can define the most important factor of job offer, namely the active population who, economically speaking, supplies the labour force available for the production of goods and services, being made of individuals at employment age, available for work, i.e. able to work. In its turn, the active population contains two components:

- the employed population, who, statistically speaking, is made up of all the individuals at legal employment age, able to work and who, during the reference period, carry out an economic or social activity which has been producing goods or services for at least one hour, being remunerated with salaries, payment in kind or other benefits. The employed population contains the employed civilians, business owners, freelancers, apprentices and paid interns, military personnel;

- the active unemployed population (the unemployed).

According to the definition provided by the International Labour Office (ILO), the unemployed is an individual who is able to work, aged 15 and above and who, during the reference period, fulfils the following conditions at the same time:

- does not have an income-producing job;
- is looking for a job;
- is available for a paid or unpaid job, being able to start work anytime within the following 15 days.

The difference between a country's total population and its active population is called inactive population, which includes the stay-at-home population of any age, pupils and students who do not perform any incoming-producing activity, the retired who no longer work for a supplementary income, other socially-assisted individuals.

After 1990, Romanian society has come across a series of social and economic transformations, the new reforms covering all fields of activity. Simultaneously, the transition process has faced great difficulties, claiming high social costs, under inflation, unemployment, polarisation of income, decrease of purchasing power etc. (Țoțan, Geamănu, & Tudose, 2012).

In Romania, the government has already been involved in projects which encouraged and implemented quality in entrepreneurship; these projects are competitive in all sectors of economy with growth potential and which promote entrepreneurial culture amongst women as an alternative for the improvement of the standard of living (Boca, 2011).

In order to be efficient, performance assessment has to be integrated into an adequate human resource management system, in which the fundamental features of the assessors should be professionalism, fairness and reliability (Zima, Sabou, Toader, & Toader, 2013). Furthermore, ethical practices have to be encouraged when it comes to employment policy (Cozma Ighian, 2015).

As regards unemployment, there are numerous solid proofs that the level and the duration of the unemployment benefit have a significant positive impact upon unemployment (Nunziata, 2002).

Moreover, unemployment can lead to health deterioration (McKee-Ryan, Song, Wanberg, & Kinicki, 2005), absence from work due to illness and disability pensions (Helgesson, Johansson, Nordqvist, Lundberg, & Vingård, 2013).

Many studies show that the unemployed individuals have a poorer health condition, both mentally and physically, as compared with employed individuals (Paul & Moser, 2009).

Unemployed people have a low self-esteem due to the fact that they are not involved in activities which are then evaluated and assessed by other people (Zunker, 1994). It is clear that modern studies do not always allow for clear conclusions regarding the relative importance of losing one's job and the evaluation of the economic losses, or regarding the importance of one's personality and previous experiences, which may have an influence over their behaviour as unemployed (Hartley & Freyer, 1984).

3. RESEARCH METHODOLOGY

Starting from the idea that the professional status influences the natural mobility of the population, and from the negative economic implications that the aging phenomenon has, we established as independent variables the employment rate and the unemployment rate in Romania. These variables are presented as percentages, in the former case being calculated as the rapport between the employed civilian population and the work resources, and in the latter case as the rapport between the number of unemployed individuals (recorded at the employment agencies) and the active civilian population (unemployed + employed civilian population, as defined according to the methodology for the balance of the labour force). In order to determine whether there is a relation between the individuals' professional status and the natural mobility of the population in Romania, we chose three large sectors for the dependent variables: marriage, divorce and birth rate. Thus in order to describe the field of marriage we used: the marriage rate (the number of marriages in one year reported for the population by 1 July from the current statistics, expressed in number of marriages per 1000 inhabitants) and the age at which males and females get married for the first time. As regards divorce, the following variables were chosen: the total number of divorces which represent the dissolution of a legally concluded marriage, through a definitive decision by a court of law, the registrar or a notary public, the number of divorces which occurred in the case of marriage lasting up to one year and the number of divorces occurring after 1-3 years of marriage.

The study of the last mentioned demographic phenomenon, i.e. natality in Romania, was carried out by employing three variables: the birth rate (the number of live births in one year reported for the population by 1 July from the current statistics, expressed in number of live births per 1000 inhabitants), population growth rate (the difference between the number of live births and the number of deceased people) and the number of children a fertile woman has.

The statistical data were taken from the website of the Romanian National Institute of Statistics, and refer to a period of 24 years, between 1991 and 2014.

The evolution of the employment and unemployment rates over the 24 year span was represented in graphical form by means of the programme Microsoft Office Excel 2010, while the descriptive statistics and the values of the coefficients which analyse the presence or absence of certain correlations were done with the statistics software SPSS 17 (Statistical Package for Social Sciences).

4. RESULTS AND DISCUSIONS

Before stating the hypotheses of the research we analyse the unfolding of the two rates during the analysed period, which describe the main professional categories of the active population. In Figure 1 one can notice that the employment rate follows a decreasing trend, recording only 3 short periods of insignificant increase: in 2000 (1.6 % as compared to 1999), between 2006 and 2008 (in 2006 the increase as compared to 2005 was of 1.7%, in 2007 the increase as

compared to 2006 was of 2%, and in 2008 the increase as compared to the previous year was of only 0.2%) and in 2012 (1.5 % as compared to 2011).

As regards the extreme values, i.e. the minimum and the maximum, we can notice these in 2010 and 2011 (59.6%), as well as in 1991 (82.5%). Taking a close look at the graph in Figure 1, we can notice that in none of the years within the analysed period, except in 1991, does the value of the employment rate exceed 80%.

One possible explanation for the maximum value recorded in 1991 is provided by the political situation in the post-communist period in Romania during which most jobs were still kept, i.e. most people were still state employees, yet most jobs were unproductive.

The minimum value recorded in 2010 and 2011 is the result of the global economic crisis which began in 2008 and which had a negative impact over Romania as well, many companies being forced to limit their activity or even declare bankruptcy.
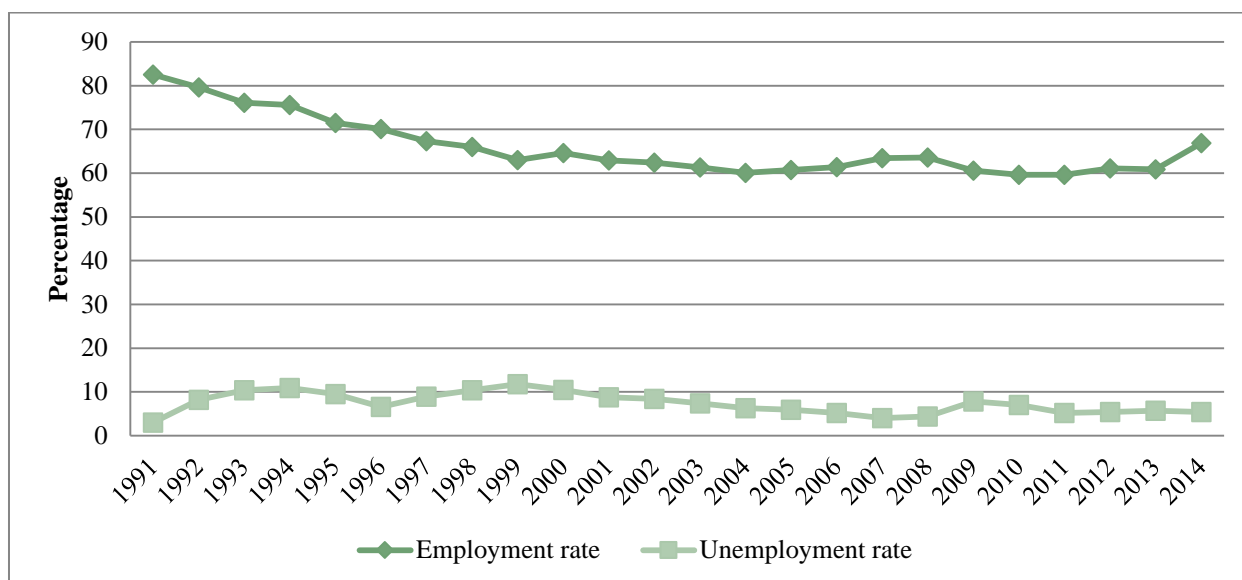

Figure 1. Evolution of employment and unemployment rates in Romania during 1991-2014

On the other hand, the evolution of the unemployment rate shows more frequent oscillations with no major differences between them. As expected, considering the fact that the maximum value of the employment rate was recorded in 1991, exceeding 80%, the minimum value of the unemployment rate is recorded in the same year, at 3%.

The situation changes if we analyse the maximum value of 11.8% recorded in 1999, when many state-owned companies, which had a high number of employees, were dissolved or privatized. Analysing the average value of the employment rate, which is 65.8667%, we notice that it is closer to the minimum value recorded by this variable during the analysed period of time, while the average unemployment rate of 7.3782% is closer to the minimum value of this variable.

 We begin the analysis of the correlations between the variables which analyse the Romanian individuals' professional status by stating three null hypotheses.

These null hypotheses will be tested by calculating the Spearman coefficients due to the fact that for these variables there are not many data available (statistical records were begun in Romania after 1989, when the communist regime was toppled).

Hypothesis 1. There is a relation between the professional status (the employment and the unemployment rate) and the marital status of individuals in Romania

Table 1. Correlation coefficients which test hypothesis 1

		Marriage rates	Average age at which men marry	Average age at which woman marry
Employment rates	Correlation Coefficient	.720**	-.734**	-.735**
	Sig. (2-tailed)	.000	.000	.000
Unemployment rates	Correlation Coefficient	.045	-.566**	-.569**
	Sig. (2-tailed)	.834	.004	.004

**. Correlation is significant at the 0.01 level (2-tailed).

In this instance, the first null hypothesis is "in Romania there is no relation between the employment rate and the number of marriages reported per 1000 inhabitants", whose alternative hypothesis is the "in Romania there exists a relation between the employment rate and the number of marriages reported per 1000 inhabitants".

Before studying the Sig. values in table 2, we choose as significance level 0.05 because this is the most frequent value used in statistical research.

Looking at column 3, row 2, where the null hypothesis is tested, we notice that the Sig. value (0.000) is below the chosen significance threshold (0.05).

This proves the fact that the null hypothesis is rejected, while the alternative one is accepted; this means that in Romania there exists a relation between the employment rate and the number of marriages reported per 1000 inhabitants.

Moreover, the high, positive value of 0.720 of the Spearman correlation coefficient indicates the fact that the relation is strong and positive.

Looking at column 3, row 3 in table 2, where the value of the Spearman correlation coefficient is for the relation between the employment rate and the marriage rate, we notice that the Sig. value (0.834) is higher than 0.05, which leads to the acceptance of the null hypothesis.

Thus we can state that in Romania there is no relation between the unemployment rate and the marriage rate.

In the case of the average age at which both males and females decide to get married, we notice that this is strongly influenced by the employment rate and the unemployment rate (in all four cases, the Sig. value is below 0.05).

An interesting aspect to be noticed is the fact that the negative sign of all 4 Spearman coefficients indicates negative correlations, thus, for example, as the employment rate increases, the average age at which both male and female individuals in Romania decide to get married decreases.

Hypothesis 2. There is a relation between the professional status (the employment and the unemployment rate) and the number of divorces in Romania

Table 2. Correlation coefficients which test hypothesis 2

		Divorces occurred after less than 1 year of marriage	Divorces occurred after 1-3 years of marriage	The total number of divorces
Employment rate	Correlation Coefficient	.122	.750**	.130
	Sig. (2-tailed)	.571	.000	.543
Unemployment rate	Correlation Coefficient	.434*	.480*	-.117
	Sig. (2-tailed)	.034	.018	.586

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The social phenomenon which is the opposite of marriage, i.e. divorce, is influenced more by the unemployment rate than the employment rate. Yet none of these professional categories influences the total number of divorces (when it comes to the employment rate, the value of the Sig. significance threshold is 0.543 >0.05, and when it comes to the unemployment rate, the value of the Sig. significance threshold is 0.586 >0.05).

The change occurs in the situation when marriages last up to 1 year or between 1 and 3 years. If the number of divorces recorded after the interval 1-3 years of marriage are positively and strongly influences by the employment rate (the value of the Sig. significance threshold is 0.000<0.05, and the value of the Spearman correlation coefficient is 0.750) and by the unemployment rate (the value of the Sig. significance threshold is 0.018<0.05, and the value of the Spearman correlation coefficient is 0.480), in the case of divorces occurring after less than 1 year of marriage, the direct relation exists only with the unemployment rate (the value of the Sig. significance threshold is 0.034<0.05, and the value of the Spearman correlation coefficient is 0.434).

In other words, as the unemployment rate grows, the number of divorces recorder after less than 1 year of marriage and after 1-3 years of marriage will also grow.

The employment rate bears no influence upon the decision to get a divorce during the first year of marriage, the value of the Sig. significance threshold being 0.571>0.05, which means that the null hypothesis is accepted: "in Romania there is no relation between the employment rate and the number of divorces occurring after at least one year of marriage.

Hypothesis 3. There is a relation between the professional status (the employment and the unemployment rate) and the birth status in Romania

Table 3. Correlation coefficients which test hypothesis 3

		Birth rate	Natural increase	Number of women who give birth to their first child	Number of women who give birth to their second child	Number of women who give birth to their third child	Number of women who give birth to their forth or more child
Employment rate	Correlation Coefficient	.744**	.556**	.771**	.444*	.411*	.749**
	Sig. (2-tailed)	.000	.005	.000	.030	.046	.000
Unemployment rate	Correlation Coefficient	.490*	.315	.425*	.341	.461*	.561**
	Sig. (2-tailed)	.015	.133	.038	.103	.023	.004

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Natality and population growth are 2 very useful variables in the study regarding the prevention of the phenomenon of population aging. In table 3 we can notice that these 2 rates are positively correlates with the employment rate; the relation is provided by the Sig. value 0.000 in the former case and 0.005 in the latter case, as well as by the positive value of the correlation coefficient (0.744 and 0.556 respectively).

The situation changes slightly when it comes to the unemployment rate due to the fact that there is no relation between this and population growth, there being a positive relation only with the birth rate (the value of the Sig. significance threshold is $0.015 < 0.05$, and the Spearman correlation coefficient is 0.490).

This situation can be explained through the fact that population growth is calculated as the difference between birth and death rates, the latter not being in tight relation with the unemployment rate.

Due to the values of the Sig. significance threshold coefficients which are below the reference value 0.05 in the case of the employment rate and the number of children, we can conclude that no matter how many children a family has, the increase of the number of employees will lead the birth of a child. The situation is as follows:

- one child: the value of the Sig. significance threshold is $0.000 < 0.05$, and the Spearman correlation coefficient is $0.771 \rightarrow$ the null hypothesis is rejected, and the alternative hypothesis is accepted $\rightarrow$ there exists a positive relation between the employment rate and the number of women who give birth to their first child;
- 2 children: the value of the Sig. significance threshold is $0.030 < 0.05$, and the Spearman correlation coefficient is $0.444 \rightarrow$ the null hypothesis is rejected, and the alternative hypothesis is accepted $\rightarrow$ there exists a positive relation between the employment rate and the number of women who give birth to their second child;
- 3 children: the value of the Sig. significance threshold is $0.046 < 0.05$, and the Spearman correlation coefficient is $0.411 \rightarrow$ the null hypothesis is rejected, and the alternative hypothesis is accepted $\rightarrow$ there exists a positive relation between the employment rate and the number of women who give birth to their third child;

- 4 or more children: the value of the Sig. significance threshold is $0.000 < 0.05$, and the Spearman correlation coefficient is 0.771) → the null hypothesis is rejected, and the alternative hypothesis is accepted → there exists a positive relation between the employment rate and the number of women who gave birth to their fourth child or more.

As regards the unemployment rate, as it grows, the number of women who give birth for the first time, those who give birth for the third time and those who are at their forth birth or more will also grow. This conclusion was drawn while looking at the last row in table 3, columns 1, 3 and 4, where the value of the Sig. significance threshold is below 0.05.

5. CONCLUSIONS

Studying the implications the professional status can have upon the natural mobility of the Romanian population has serious implications for the economic sector in particular due to the fact that population aging causes negative economic effects.

The situation in Romania proves to have some specific peculiarities, probably explained by the influences of the communist regime which can still be felt even 26 years after the instauration of democracy.

As expected, the increase of the number of employed individuals will result in an increase in the number of marriages.

For the Romanians, material resources are a decisive factor in their decision to get married. Despite these, the unemployment rate does not influence the marriage rate, and a possible explanation for this situation is provided by the temporary status of unemployment (in most cases this situation does not last more than 1 year), which can undergo changes at any moment, while marriage is viewed as a long-term relationship.

The decrease of the average age at which men and women get married, along the increase of the unemployment rate, can be explained by the fact that many unemployed people have a low education level, as well as by the fact that these are mostly to be found in rural areas where marriages at young age are encouraged.

The bigger the number of years spent in a marriage, the more the professional status of the partner does not determine the taking of the decision to separate.

If the couple is at the beginning of their road, one of the factors which triggers separation is the professional status of being unemployed because of the fact that the lack of financial resources leads to the occurrence of tensions and conflicts.

Romania being a traditionalist and religious society where childbirth outside wedlock is not readily accepted, we considered it necessary to include in our research marriage and divorce rate.

During the past 24 years, birth rate has been influenced both by the professional status of being employed and that of being unemployed.

If in the former case the explanation is a logical one, the unemployed prefer to have only one child, most of the time, in order to benefit from the statutory maternity pay, which is a benefit currently paid for 2 years.

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