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RURAL HOUSEHOLD TYPOLOGY ACCORDING TO THE SOCIO-ECONOMIC DEVELOPMENT PERSPECTIVES

LORENA FLORENTINA CHIȚEA¹

Abstract: *The Romanian rural household is the socio-economic unit for which the agricultural activity continues to be the main source of income or at least of supplementing incomes in the form of self-consumption; thus, most rural households overlap the agricultural household farms/peasant farms/small-sized farms. The actuality of this topic results from the ever increasing importance of small farms in the European Union, the literature highlighting their role in the production of environmental public goods, food security, preservation of traditions and local crafts, being the main driving engine of the rural area, with important role in the demographic, economic and social vitality of the Romanian countryside. The paper intends to establish a typology of the rural households in territorial profile according to the agricultural/non-agricultural employment level, to provide a first information on the degree of rural household dependency on the farming activity. The main working hypothesis is the following: the communities with numerous rural population and lower average age have a higher share of non-agricultural occupations. The methodology used is based on Pearson correlation method that can be positive (in the case of direct correlations) or negative (in the case of inverse correlation) between the analyzed variables.*

Keywords: *rural area, rural household, rural development*

JEL Classification: *R20, Q 01, O2*

INTRODUCTION

The actuality of the present paper stems from the need to identify a series of measures regarding the employment of the rural population, which could support the demographic, social, economic and cultural vitality of rural area in the context of accession to the European Union. For the orientation and promotion of demographic, economic and social policy programs, the individual analysis is needed, at the level of person, as well as the analysis at household level, this being the socio-economic unit where decisions are made with regard to the demographic, social (educational), economic behavior of each individual in part.

The Romanian rural household is the socio-economic unit for which the farming activity continues to be the main source of income or at least of supplementing incomes in the form of self-consumption; thus, most rural households overlap the agricultural household farms/peasant farms/small-sized farms. The actuality of this topic stems from the ever increasing importance of small-sized farms in the European Union, and the literature emphasizes their role in producing environmental public goods, food security, being the main driving engine of the rural area, with an important role in the demographic, economic and cultural vitality of the Romanian countryside.

At the moment of Accession to the EU, Romania's agrarian structure was a dual structure, in which small farms represented 99.55% of the total number of farms and used 65.20% of total utilized agricultural area (UAA), while the large farms accounted for only 0.45% of total number and used 34.80% of total UAA [5]. At ten years after the accession, the number of small farms decreased by 13.6% and the utilized agricultural area operated by these was down by 29.3%, while in the case of large farms a consolidation process took place, the number of farms increasing by 47.5% and the utilized agricultural area operated by these increased by 16.5% [1]. Both the legislation of the transition period and the new agricultural programs in the pre-accession period led to an increase in the discrepancy between the rural households with agricultural activity (subsistence and semi-subsistence farms) and the large competitive commercial farms that are eligible for attracting EU funds.

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MATERIALS AND WORKING METHODS

A database at county level has been used, based on the data provided by NIS in Tempo-online. The indicators used referred to the demographic component: rural population, demographic dependency and demographic renewal ratios; for the economic component, the indicators were: share of wage earners in total labour force, employment in agriculture, agricultural output value and wage earnings in agriculture.

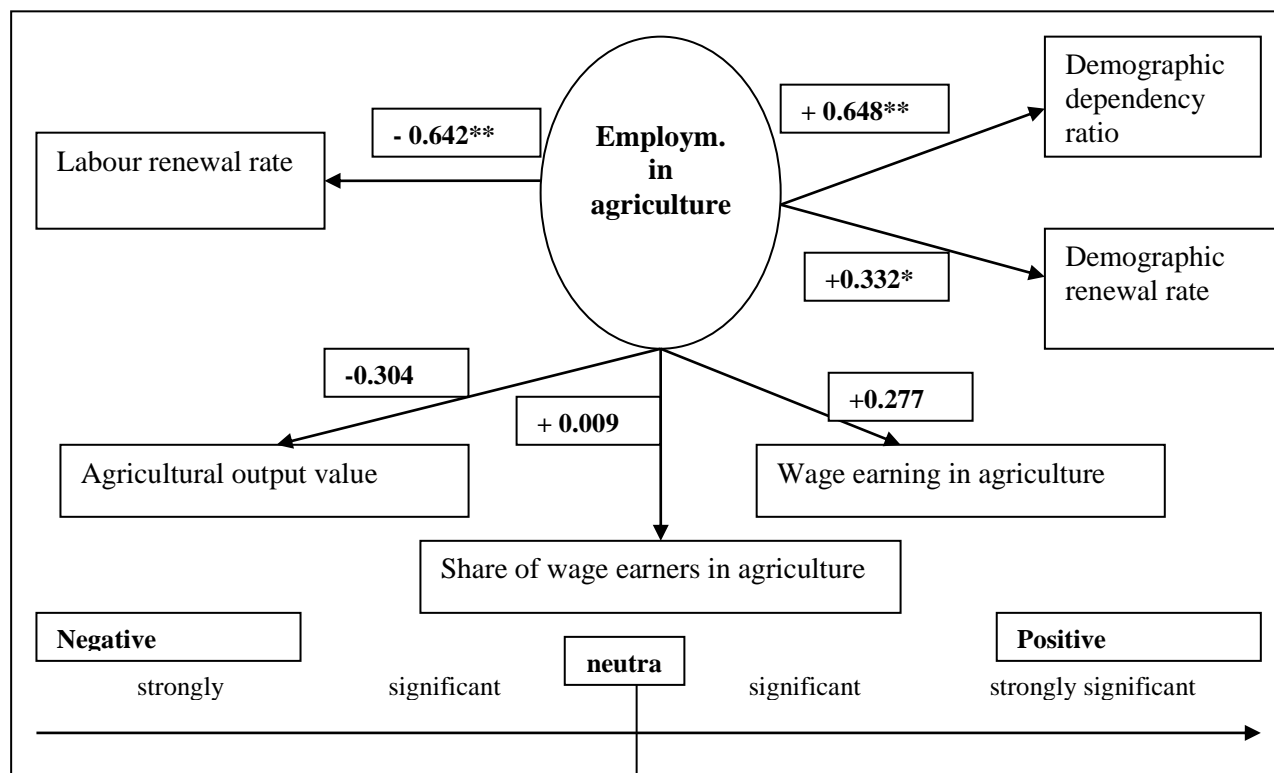
Modelling the specific variables is needed for understanding the socio-economic phenomena complexity in the Romanian rural area. Pearson correlation coefficient is frequently used in the economic and social sciences to measure the correlations between the analyzed variables. The analysis is based on Pearson correlation method that can be positive (in the case of direct correlations) or negative (in the case of inverse correlations) between the investigated variables [2], [3].

RESULTS AND DISCUSSIONS

The paper intends to establish a typology of the rural household in territorial profile according to the agricultural/non-agricultural employment level to provide a first information on the degree of rural household dependency on the farming activity. The main working hypothesis is the following: the communities with numerous rural population and lower average age have a higher share of non-agricultural occupations.

The indicators from which we started in our scientific approach are grouped into two categories: demographic indicators (rural population, demographic dependency ratio, demographic renewal rate) and economic indicators (employment in agriculture, labour renewal rate, agricultural output value, wage earnings in agriculture). These are chosen by the author so as to be relevant to the subject, to provide available data. Following the analysis based on Pearson method, the resulting correlations are presented in the figures below.

Figure no. 1. Scheme of correlation between the share of population employed in agriculture and the selected demographic and economic indicators



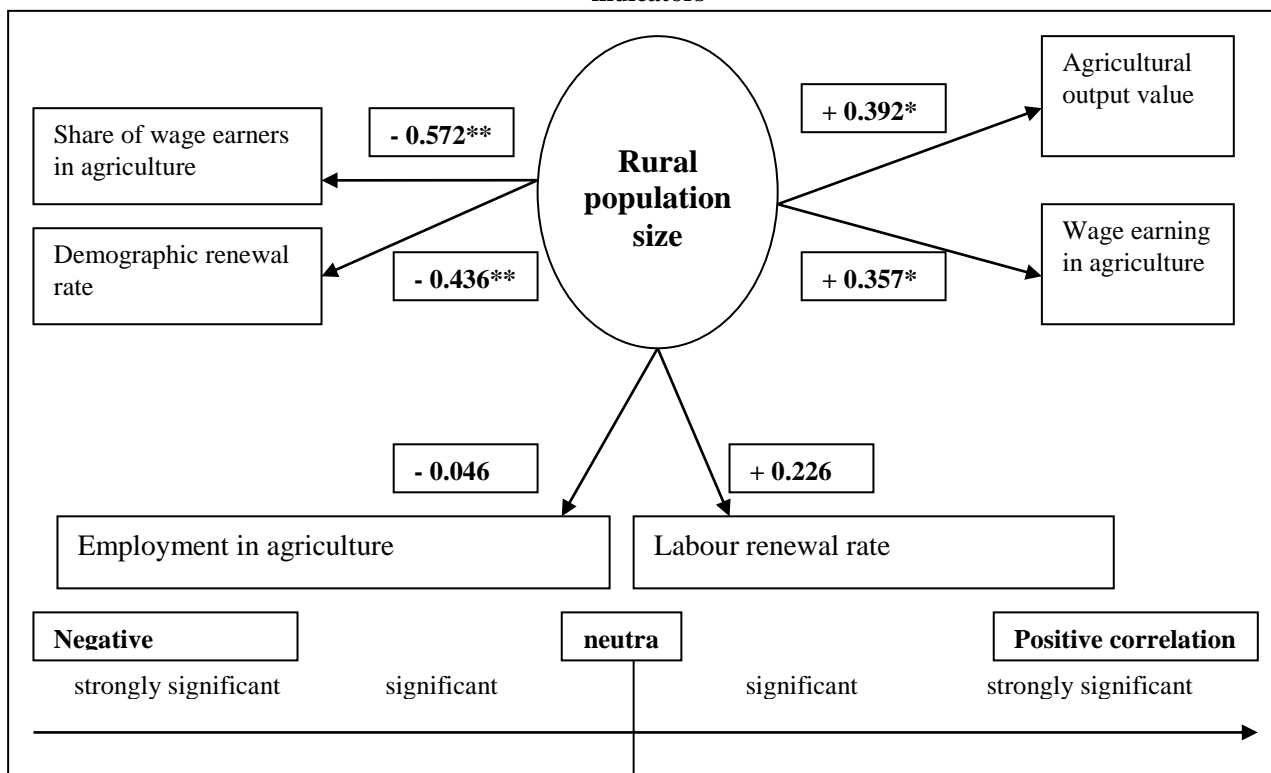
Note: * significant correlation, ** strongly significant correlation

Source: author's calculations based on NIS data, through SPSS software

In order to verify the main hypothesis of the paper, we started from the correlation of employment in agriculture indicator with the other demographic and economic indicators. Thus, the high share of population employed in agriculture strongly correlates with a higher demographic dependency ratio (+0.648**), which denotes an aging population employed in agriculture. This unfavourable situation is also revealed by the strongly significant negative correlation between the employment rate in agriculture and the labour renewal rate (-0.642**).

The employment in agriculture does not correlate with the agricultural output value or with the average wage earnings in agriculture, which reveals the subsistence character of agriculture in the counties where farming activities prevail. As employment in agriculture has no impact on the economic activity, the typology by the degree of employment in agriculture is no longer of scientific interest in the present paper, and the analysis of the demographic dimension will be considered, having in view the following indicators: rural population size and dependency ratio.

Figure no. 2. Scheme of correlation between the rural population and the selected demographic and economic indicators



Note: * significant correlation, ** strongly significant correlation

Source: author's calculations based on NIS data, through SPSS software

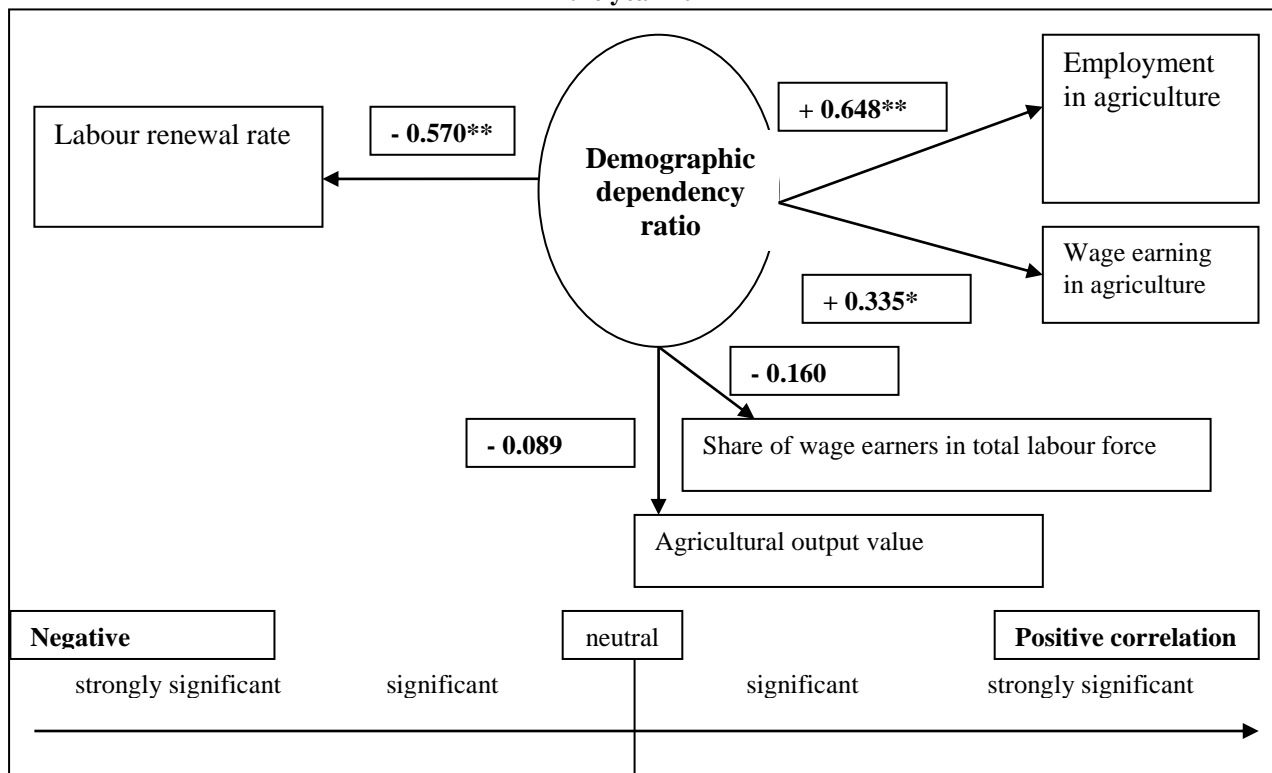
The rural population influences the economic activity, so that there is a significant direct correlation with the agricultural output value (+0.393*) and the earnings in agriculture (+0.354*). In other words, a numerous rural population generates an intensification of agricultural activity, which leads to higher wage earnings in agriculture, which leads us to the empirical conclusion that a numerous rural population increases the level of production.

Rural population does not influence the labour renewal rate or the employment in agriculture. Yet there is a strongly significant negative correlation instead between rural population size and the share of wage earners in total labour force (-0.573**).

The demographic dependency ratio is an indicator of the demographic burden on the economically productive population, being one of the most important indicators used in the evaluation of the financial impact of the aging process on the pension system. The indicator does not take into consideration the "dependent" persons who are economically active or the persons of working age who are dependants. The higher the dependency ratio, the higher the pressure exerted by the inactive population on the active population. In the absence of firm economic development

policies, the aging of the population may impede the increase of the living standard of the population.

Figure no. 3. Scheme of correlation between the demographic dependency ratio and the economic indicators, in the year 2017



Note: * significant correlation, ** strongly significant correlation

Source: author's calculations based on NIS data, through SPSS software

The demographic dependency ratio strongly significantly correlates with the employment in agriculture indicator ($+0.648^{**}$) and it significantly correlates with the wage earnings in agriculture ($+0.335^*$), yet it bears no influence on the agricultural output value (-0.089). In other words, the higher demographic dependency ratio, the more important is the agricultural activity for the rural population, yet in economic terms this does not represent added value. The demographic dependency ratio has a strongly significant negative correlation (-0.570^{**}) with the labour renewal rate, which is normal in the conditions in which a high demographic dependency ratio directly correlates with the aging of the population.

From the analysis of the demographic and economic indicators using the Pearson correlation, the strongest correlations are generated by the demographic indicator: rural population size. Thus, we opted for establishing the rural household typology according to the demo-economic development potential for the demographic criterion, by the indicator: average demographic size of the commune, which highlights a series of relevant information on the demographic and economic development prospects of rural households. Thus, the following typology has been established:

- rural households with very low development prospects (endangered): in the counties where the average number of inhabitants per commune is 2468;
- rural households with low development prospects (at a critical threshold): in the counties where the average number of inhabitants per commune is 3338;
- rural households with medium development prospects: in the counties where the average number of inhabitants per commune is 4382;
- rural households with good development prospects: in the counties where the average number of inhabitants per commune is 5166;
- rural households with urbanization prospects: in the county Ilfov, where the average number of inhabitants per commune is 7002.

Table no. 1. Demographic and economic indicators related to the typology of rural households according to the socio-economic development perspectives

	A	B	C	D	F
Rural population	159951.83	232928.10	346392.14	480462.00	224055.00
Average demographic size of the commune	2468.40	3338.40	4382.34	5166.26	7001.72
Average demographic size of the village	661.66	798.45	1095.95	1149.43	2462.14
Demographic dependency ratio	53.37	51.41	47.98	47.03	43.35
Demographic renewal rate	98.81	87.22	82.00	65.06	105.00
Labour renewal rate	1.71	1.72	1.74	1.72	1.26
Employment in agriculture	27.87	26.59	25.04	23.61	13.35
Share of wage earners in agriculture	2.89	2.21	1.48	1.23	1.72
Agricultural output value	1611866.08	2042775.15	2171106.71	2103620.00	672750.00
Average wage earning in agriculture	1776.08	1799.90	1941.86	1847.00	2142.00

Source: NIS - Tempo online

CONCLUSIONS

From the above analysis, the main working hypothesis has been confirmed, the degree of importance decreases employment in agriculture as communities are numerous, but the agricultural production value and the average wage in agriculture. Confirming once again the predominantly subsistence agriculture with low productivity and competitiveness.

For the establishment of a hierarchy of rural households by the demo-economic development potential, we started from the assumption that a good criterion could be the degree of agricultural employment; yet as a result of the Pearson correlations, a very weak influence on the economic results has been noticed. Following the Pearson analyses, among the demographic and economic indicators, the most appropriate criterion (average demographic size of a commune) has been identified in order to highlight a series of relevant information on the demo-economic development prospects of rural households.

The households with the lowest demographic and economic prospects are those with the highest demographic dependency ratio, as well as with the highest demographic renewal rate, with a high labour renewal rate respectively; yet these values cannot contribute to the demographic/economic regeneration of the rural households from the respective counties. In economic terms, we can notice the lowest agricultural output value and the lowest wage earnings, in the context in which the employment rate in agriculture is the highest, together with the highest share of wage earners in agriculture.

The households with good demographic and economic prospects are located in the counties with the largest-sized communes and villages; yet even though the demographic dependency ratio is lower compared to the other categories, it cannot be supported by the low demographic renewal rate. From the demographic point of view, the development potential in the counties with good development prospects is not supported by a real potential of demographic regeneration, but rather by the current demographic situation in which the population of working age and the elderly population prevail, and the share of the young population is quite low.

As the county Ilfov has a special status, given its proximity to the capital city, it has been proposed to establish a special category for this county within the typology "rural households with urbanization prospects". This category is characterized by a large demographic size, with the lowest dependency ratio, the only category that ensures its demographic regeneration having a 105% demographic renewal rate. In economic terms, the agricultural production obtained in this category is not important, the percentage of population employed in agriculture being the lowest, yet the highest wage earnings in agriculture can be noticed in this category.

BIBLIOGRAPHY

1. Alexandri Cecilia, 2017, *Agricultura și spațiul rural. Evaluări la 10 ani de la aderare*, Ed. Academia Română
2. Dănciulescu Daniela, 2015, Studiul statistic al legăturilor dintre fenomenele și procesele economico-sociale. STATISTICĂ. Teorie și aplicații,
<http://inf.ucv.ro/documents/danciulescu/curs8-curs9-curs10.pdf>
3. Pavel, A., Moldovan, B.A., 2017, Dezvoltarea locală în spațiul rural din regiunea Nord-Vest a României, Revista Transilvăneană de Științe Administrative
4. *** NIS, 2018, Tempo-online
5. *** NIS 2016, *Farm Structure Survey*