

THE STUDY OF THE RELATIONSHIP BETWEEN RURAL POPULATION SPENDING ON PEASANT HOUSEHOLDS WITH THE MAIN SOCIO-ECONOMIC INDICATORS: A CASE STUDY OF VOLYN REGION, UKRAINE

Mykola DZIAMULYCH^{1*}, Iryna SADOVSKA², Tetiana SHMATKOVSKA²,
Kateryna NAHIRSKA^{1**}, Oksana NUZHNA^{1**}, Olga GAVRYLIUK^{1**}

¹Lutsk National Technical University, *Department of Economics, **Department of Accounting and Audit, 75 Lvivska street, 43018, Lutsk, Volyn region, Ukraine. Emails: m.dziamulych@lntu.edu.ua, k.nagirska@lutsk-ntu.com.ua, o_nuzhna@ukr.net, bortniko@gmail.com

²Lesya Ukrainka Eastern European National University, Department of Accounting and Audit, 28 Vinnichenko Street, Building 7 (G), 43021, Lutsk, Volyn region, Ukraine. Emails: irina_sadovska@ukr.net, shmatkovska2016@gmail.com

Corresponding author: shmatkovska2016@gmail.com

Abstract

The paper investigates the interdependence and interrelation of the value of monetary and non-monetary expenditure incurred for the maintenance of private peasant farms functioning, with other socio-economic factors and differentiation of rural population food consumption in the regional context, namely on the case of the Volyn region of Ukraine. Based on the results of our study, it was found that households in which incapacitated persons predominate directly to provide much more financial, labor and other resources for the functioning of their own peasant households, that is, in such households, the activity on their own peasant households is dominant, the main one. The results of the study give grounds to claim that the peasant farms in Ukraine lose their previously dominant function – self-procuring of foodstuffs for personal consumption, transforming, gradually acquiring a new qualitative value, which in the case of successful economic decisions to further develop this organizational and legal form of management effectively adapt it to new economic conditions.

Key words: rural population, peasant households, the decile factor, coefficient of elasticity, per capita monetary expenditures, sex-age pyramid of the population

INTRODUCTION

Under the realities of economic conditions today, personal forms of farming have become the dominant of the private economic sector in rural areas and have taken the leading position in agricultural production. One of the prominent roles in the basis of the rapid growth in the number of personal farms, in our opinion, is played by the high motivation of their owners, since the activity of these forms of management provides a favourable symbiosis of the functions of the owner and the employee. At present, only in 2016, with the adoption of the Law of Ukraine «On Personal Farming» of 15.05.03, i.e. by the legislative consolidation of the principles of their functioning, personal peasant farms have moved from the sphere of informal to the

sphere of formal institutions, in fact, forming the food security of the country.

Thus, it should be noted that in the current conditions of management of the guarantor and the basis of material well-being of the average peasant is the very personal farm, which has lost its subsidiary role.

Theoretical and applied principles of functioning and development of personal peasant households of the population are considered in the scientific works of I. Lukinov, P. Sabluk and O. Onyshchenko [5], O. Chaianov [2], I. Tofan and O. Ahres [9], L. Shepotko etc. We have made an attempt to investigate insufficiently studied aspects regarding the peculiarities of socio-economic conditions of personal peasant farms functioning in rural areas of the Volyn region of Ukraine.

The purpose and objectives of the publication are to investigate the interdependence and interrelation of the value of the monetary and non-monetary expenditure incurred for the maintenance of the private peasant farms functioning, with other socio-economic factors and differentiation of rural population food consumption in the regional context, namely on the case of the Volyn region of Ukraine.

MATERIALS AND METHODS

To measure income inequality, all rural populations (that is, all rural households) are pre-ranked by their own income (or expenditure). All peasant households were divided by their income (expenditure) into five groups called quintiles or ten groups called deciles. The first group includes the poorest peasant households, and the latter (fifth or tenth, depending on the distribution option) – the most affluent peasant households.

The decile factor was defined as the result of the income ratio (or expenditure) of the higher decile group to that of the lower decile group, where the lower decile group is 10 % of the poorest households and the highest group is 10 % of the richest rural households.

In order to study the dependence of the demand for goods and services necessary for the functioning of personal farms on household incomes across the entire household, we conducted a study on its elasticity. And when comparing the elasticity of consumption of goods and services required for the functioning of peasant households (E) of two population groups with different income levels, the A. Marshall's formula was used [1]:

$$E = \frac{(x_i + 1) - x_i}{x_i} \cdot \frac{(y_i + 1) - y_i}{y_i},$$

where y_i i x_i - income and consumption of the population group with lower incomes; $(y_i + 1)$, i $(x_i + 1)$ - income and consumption of the population group with higher incomes [4].

It is worth noting that the coefficients of elasticity were calculated by determining the percentage increase in money expenditures of the population on the purchase of goods needed for the personal farms functioning, calculated

on the one percent increase in total monetary expenditures in each of the income groups. The weights of the households by individual income groups in their total numbers are selected as weights.

RESULTS AND DISCUSSIONS

Based on monetary incomes and aggregate resources, the population carries its costs and forms a certain level of goods and services consumption. It should be noted that since the incomes of a household tend to decrease, the actual state of the financial support of the population is more accurately and adequately characterized by the cost indicators.

The rate of change in the share of the vast majority of elements of monetary expenditures in urban and rural households in the Volyn region of Ukraine is practically the same. However, the dynamics of some of them do not fall within the general trend. Thus, the share of nominal expenses for maintaining a personal peasant households in the total amount of monetary expenses during 2013-2018. in rural households in the Volyn region it decreased by 6.1 percentage points from 15.9 % to 9.8 % (but in 2018 it was 5.8 times higher than in urban households), and in non-consumer money expenditures – by 6.5 percentage points and amounted to 47.4 % (Figs. 1 and 2).

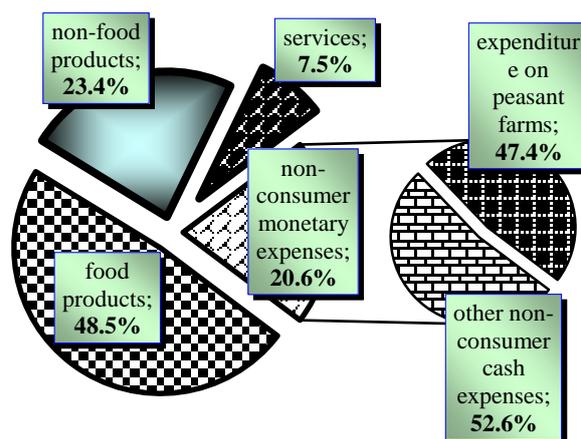


Fig. 1. Share of elements of average per capita monetary expenditures of the rural population of the Volyn region of Ukraine (average per month), 2018, % Source: Author's results based on [6; 7].

In addition, the share of average per capita money expenditures of rural households on maintaining a personal (deflated) calculation in

the Volyn region of Ukraine decreased by 6.5 percentage points over the period under review, and by 1.4 percentage points in urban households in the region.

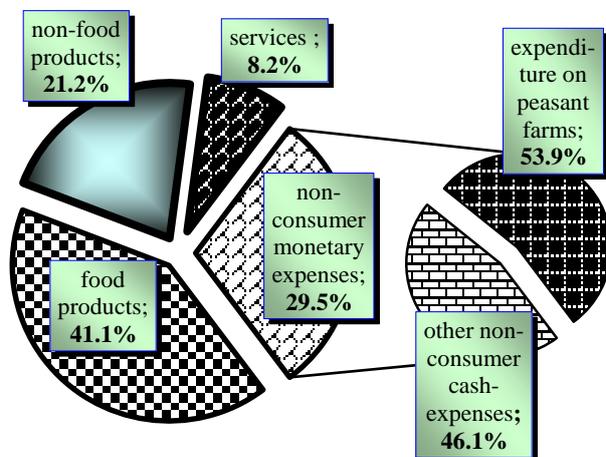


Fig. 2. Share of elements of average per capita monetary expenditures of the rural population of the Volyn region of Ukraine (average per month), 2013, %
 Source: Author's results based on [6; 7].

Although the nominal average per capita monetary expenditures for the peasant households for 2013-2018 in urban households in the Volyn region of Ukraine increased by 33.7%, but in real terms they decreased by 2.2%. In rural households in the Volyn region of Ukraine, the real value of these expenditures for the studied period increased by an average of 1.9 times per person. In general, it can be stated that in the Volyn region of Ukraine in 2018 the differentiation of the costs of maintaining peasant farms from smaller to larger income groups, formed by average per capita total expenditures, is abrupt and therefore makes it impossible to distinguish clearly expressed trends.

Estimation of the costs of managing peasant farms, depending on the number of workers, shows that the majority of such expenditures are made by households of the Volyn region of Ukraine, which include 2.8 times more households with two workers in other sectors, and in 1.2 times more – with three employees. The presence of a larger number of workers creates much more significant opportunities for expanding the functioning of the personal economy. However, the results of the analysis

show that in the vast majority of such households, activities in their own personal peasant economy are not basic. In general, it can be stated that households of the Volyn region of Ukraine, all members of which are disabled, spend 2.2 times more on their own peasant households than households all members of which are of working age. In addition, households with one incapacitated person spend 8.5 times more on the costs of running their own farm than households with one working-age person. At the same time, the share of cash expenditures for own peasant economy in households formed from disabled persons is 10.8 %, which is 5.2 percentage points more than for the whole households of the Volyn region of Ukraine. The above gives grounds to argue that households in which incapacitated persons predominate direct to providing much more financial, labour and other resources for the functioning of their own peasant households, that is, in such households, the activity on their own peasant households is dominant, the main one.

In particular, in the Volyn region of Ukraine, the share of persons of working age in the age structure of peasants is now 24.4 %, which is 1.4 times more than in urban settlements [8]. Therefore, the issue of «village aging» is a particularly urgent issue – a destructive increase in the proportion of older people of working age, which has led to a significant increase in the mortality rate of peasants and is an important structural factor that will further slow down the natural increase of the rural population.

As of early 2019, the gender and age structure of the rural population of the Volyn region of Ukraine is characterized by a predominance of women whose share has decreased by only 0.6 percentage points compared to 1989 and is 52.4 %. The pattern is that the older the age group (from the age of 50), the greater the quantitative advantage of women. Particularly noteworthy is that the violation of the sex ratio in favour of women is aggravated at the age of 55-59 and becomes extremely threatening among the elderly (Fig. 3). The obvious conclusion is that the level of aging of women in rural areas is now much higher than that of men.

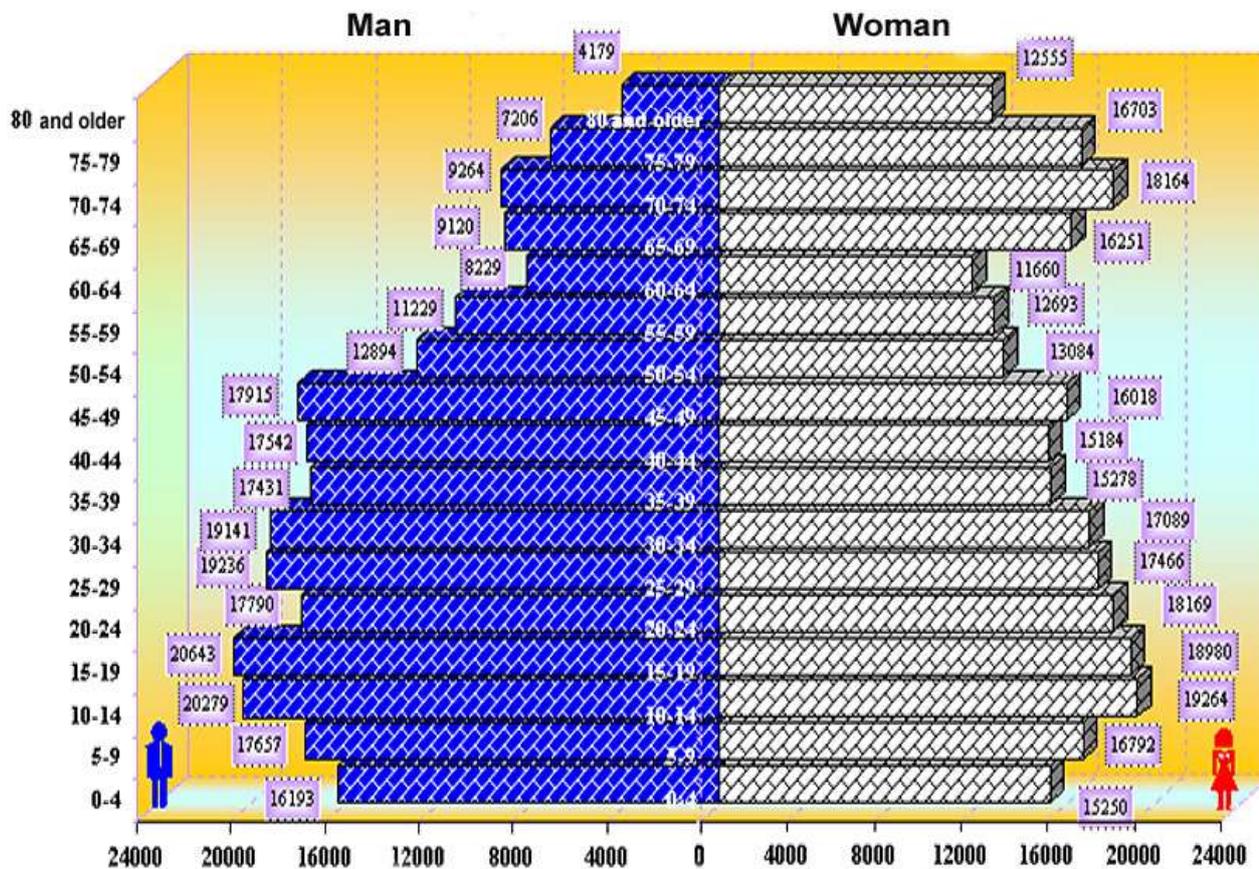


Fig. 3. Sex and age pyramid of the rural population of the Volyn region of Ukraine, as of the beginning of 2019
 Source: Built by the Authors based on [8].

Thus, the modern process of man (including labour) of the potential of villages observed on the sex-age pyramid (Fig. 3) requires knowledge of the destructives used, which point to the most recent negative interests, and require that what they think is important, but they think the question is right. The definition of this option is as follows:

- narrowed base due to the small number of young people, including new-borns;
- contours and open contours, which is a consequence of uneven demographic losses of the past [3];
- narrowed and severed tips, which is a sign of high rates of overall mortality, along with significant population aging.

According to most researchers, as well as in our opinion, the reduction of inflow of youth caused by destructive demographical processes in the countryside causes a narrowing of the general level of mobility of the population, slows down the processes of changing the professional qualification of the working or willing to work, and causes the emergence of

other important factors, the stimulants of the quality of economic growth, including the functioning of personal farms. Also, significant aging is one of the indicators of exacerbation of the problem of labour shortages, as the increase in rural labour productivity is not able to fully compensate for the natural decline in employment. We believe that under such specific conditions, the extension of the full economic and social activity of the elderly population, rather than the regulation of fertility, is the main way to achieve optimal economic conditions for the functioning of peasant farms in Ukraine.

According to the analysis of the decile grouping of the whole household of the Volyn region of Ukraine by average per capita money expenses, it is found that from smaller to larger income groups, the average per capita cash expenditures on the peasant economy are increasing, in particular, the decile ratio of the peasant households' spending funds to 2018 amounted to 4 (6.6 in total for the rural population of Ukraine). The results of the

analysis of the differentiation of cash expenditures on peasant farms in the context of decile groups formed by average per capita total expenditures in the Volyn region of Ukraine, showed that the ratio of funds to such expenditures is 7.2 (in general for the rural population of Ukraine as a whole - 5.8), and specific the weight of identified expenditures in the first and last deciles is 6.2% and 7.7%, respectively (for the rural population of Ukraine as a whole -9.1% and 7.2%, respectively), i.e. significant differentiation is not traced. In addition, it has been established that the growth rates of average per capita cash expenditures on own farms in rural households of the Volyn region of Ukraine are slightly higher, and in urban areas – almost coincide with the growth rates of income from them. We have calculated the integrated coefficient of demand's elasticity for goods needed for the activity of households, depending on the monetary income in the Volyn region of Ukraine for 2018 was 71.21%. The obtained results give reason to claim that the growth of money incomes of the population of the Volyn region of Ukraine by 1% leads to an increase

of money expenses for the purchase of goods and services for the functioning of the peasant farms by 0.71%.

When comparing the elasticity of demand for agricultural commodities for 2018 in the Volyn region and in Ukraine as a whole, it is found that the national average is slightly higher. The increase in the monetary incomes of the rural population of Ukraine as a whole by 1% causes the increase of their monetary expenditures for the purchase of goods and services necessary for the functioning of the private peasant farms by 0.84%.

Since the functioning of the personal economy is largely aimed at self-supplying the rural population with food, we believe that particular attention should be paid to one of the most important characteristics of the living standards of the rural population – the assessment of the dynamics of food consumption by them.

It should be noted that during 2013-2018 significant changes occurred in the consumption of food by the rural population of the Volyn region.

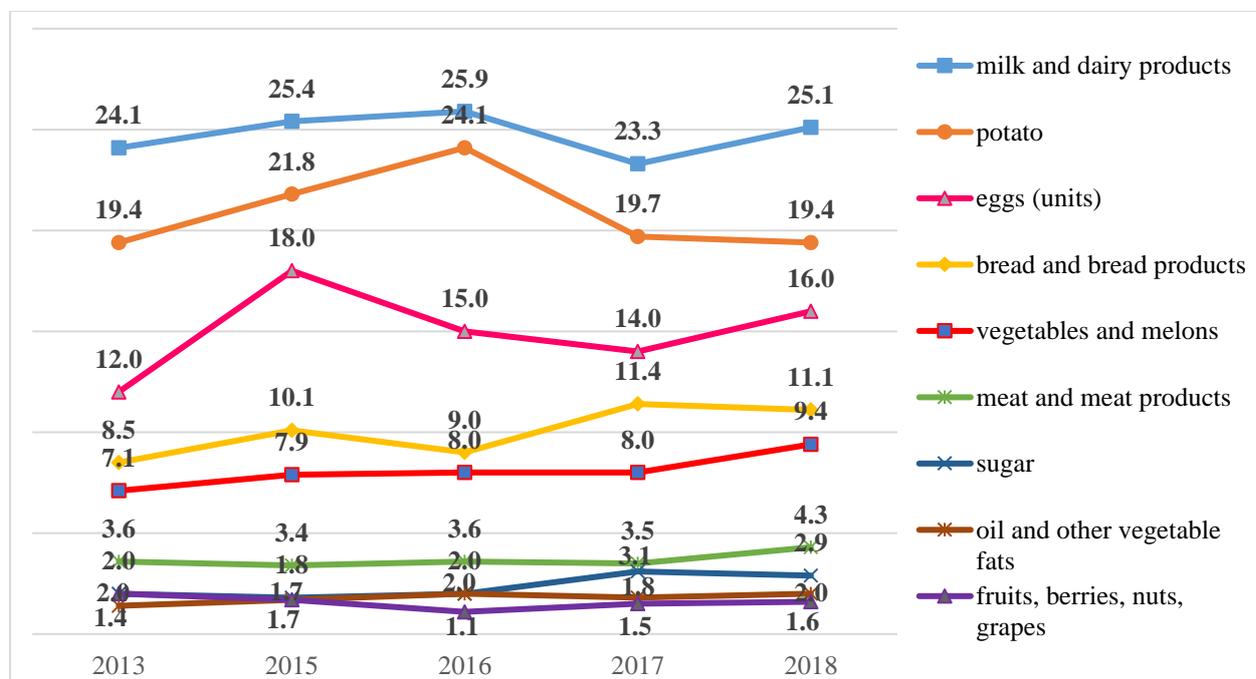


Fig. 4. Average per capita consumption of food in rural areas of the Volyn region of Ukraine for 2013-2018, on average per month, kg
 Source: Own research based on [6; 7].

First, it is necessary to notice the significant increase in average per capita consumption of such foods as fish and fish products - 2.7 times

(or 1 kg per month), sugar - 1.5 times (or 0.9 kg. Per month), oil and other vegetable fats - by 42.9%, vegetables and melons - by 32.4%,

eggs - by 33.3%. However, the average per capita consumption of fruits, berries, nuts, and grapes decreased by 20.0%, i.e. by an average of 0.4 kg per month (Fig. 4). On the whole, based on the results obtained, it can be argued that the rural population of the Volyn region eats somewhat better than the urban one since the energy value and nutritional value of their food rations are more important. However, the food consumption of the urban population is characterized by a higher saturation of more valuable types of food, so the quality of the diet in them is higher.

CONCLUSIONS

The results of the study give grounds to claim that the peasant farms in Ukraine lose their previously dominant function - self-procuring of foodstuffs for personal consumption, transforming, gradually acquiring a new qualitative value, which in the case of successful economic decisions to further develop this organizational and legal form of management effectively adapt it to new economic conditions. We see further possible prospects for the development of farms in directing their internal potential to expand non-agricultural businesses in rural areas, in particular, agro-tourism, artistic crafts, crafts and more.

We believe that the directions of further development of personal peasant farms should be differentiated, depending on the number of able-bodied persons providing for its functioning. For example, peasant households whose activities are provided only by persons with disabilities require the development and implementation of a system of progressive social measures; and peasant farms operating at the expense of the small number of persons who are mainly in working age are in need of measures aimed at ensuring sufficient production for internal consumption.

In our opinion, particular attention is paid to the development of an effective mechanism for the gradual, but effective, the transformation of personal peasant farms in which three or more persons of working age are involved, into high-commodity forms of management with a significant share of market sales.

REFERENCES

- [1] Borukh, V.O., Alamkin, R.V., 2006, Economic statistics. Kyiv. 318 p.
- [2] Chayanov, A.V., 1992, The Organization of Peasant Farming, In: Great Stranger, 1992, 430 p.
- [3] Kartashova, S.S., Ryazantseva, V.V., 2005, Influence of demographic processes on the socio-economic development of Kyiv. Statistics of Ukraine, 1: 45-52.
- [4] Kostyrko, I.G., Bitter, O.A., Petryshyn, L.P., 200, The solvency of the population and the efficiency of agriculture. Lviv: Ukrainian Technologies. 160 p.
- [5] Lukinov, I.I., Sabluk, P.T., Onyshchenko, O.M., 2000, On the strategy of transformation of agriculture and food security of Ukraine. Economy of Ukraine. 9: 62-81.
- [6] Osipova, I.I., 2014, Costs and resources of Ukrainian households in 2013. Part II. Autonomous Republic of Crimea, regions, cities of Kyiv and Sevastopol. Volyn region. Statistical bulletin. Kyiv: State Statistics Committee of Ukraine. 192 p.
- [7] Osipova, I.I., 2019, Costs and resources of households in Ukraine in 2018. Statistical Collection. Kyiv: State Statistics Committee of Ukraine. 380 p.
- [8] Strelyuk, S.V., 2019, Distribution of permanent population of Volyn region by sex and age: Statistical collection. Lutsk: Main Department of Statistics in Volyn Region. 101 p.
- [9] Tofan, I.N., Ahres, O.H., Shmatkovska T.O., 2017, Problems in administration of real estate tax other than land in Ukraine. Scientific bulletin of Polissia, 3 (11): 148-153.
<http://nvp.stu.cn.ua/uk/component/k2/item/823-tofan-i-n-ahres-o-h-shmatkovska-t-o-problems-in-administration-of-tax-on-real-estate-other-than-land-in-ukraine.html>, Accessed on Jan. 22, 2020.