

**SERVICES IN THE AGRICULTURAL PRODUCTION.
COMPARATIVE STRUCTURAL LEVELS**

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In this article reveals the dynamic level of services in agriculture in Romania. Nature and characteristics, benefit the whole agricultural system and its components fall within the rural characteristics and reflected in a particular form of consumption. Refer to specific services in agriculture, evolutionary differences ↔ client supplier relations in agriculture, interdependence and performance boundaries manifested in agricultural service benefits etc. Interdependence and boundaries manifested in the structure of agriculture service benefits, points out that the same need can be satisfied in several ways, with different services. It is one of the main reasons for the turnover of the services of Romanian agriculture, comparative levels recorded differently from other economic activities, but also to other sectors of production (plant and animal). By using the annual indices of growth last six years, with coefficients of elasticity for agricultural activity services are considered essential issues raised in the future development of rural areas in Romania.

Keywords: *service, turnover, elasticity, income services.*

From a methodological comparative analyzes aimed to describe, through a set of features (variables), differences or homogeneity of services, processes, phenomena, etc. territorial units. Initial statistical analysis was the level of services in agriculture, compared to the national economy structure. Whole methodology was based on annual levels of development services in agricultural income in the dynamics of 2003-2010, with comparisons with the overall structural turnover of market services, the GDP and agriculture production value achieved (for the plant, animal) in Romania. Were determined in dynamic indicators and indices.

Methods for estimating the influence of factors that influence the agricultural market, was performed by means of elasticity coefficients. It was applied in the forward end, and they took into account many variables compared to two stages: - Table of variables was developed, whose contribution to the development demand for services is given by production plant and animal. The dynamics of 2003-2010, the comparison: the fixed (E), the chain (E ') and based on the comparison was made last year to the maximum (E'); - Have been compiled (the coefficients of elasticity E, E ', E'), based on each variable's contribution to the evolution of consumption demand in agricultural services. The phenomenon considered effect (y) was represented by indicators related to the ability to obtain revenue from services and phenomena considered relevant changes (x), were presented by the structure of crops and animals. Coefficient of elasticity (E) was determined by computing the relationship:

$$E = \frac{\Delta y}{y} : \frac{\Delta x}{x}$$

The meaning of notations:

Δy increase the absolute size of the phenomenon considered measurable effect;

Δx -, increase the absolute size of the phenomenon considered quantifiable concerned;

- x, y -, the basis of comparison of effect sizes considered quantifiable phenomenon, that question.

The working methodology adopted has followed a knowledge of market trends in agriculture services that would be permitted to make decisions on the level structure highlighting indicators to base their services in agriculture development.

Analyzes conducted started from knowing the dynamics of comparative structure of all services in agriculture, their evolution and how the two main sectors (vegetable and animal) affect services performed in the agricultural sector.

Structure of turnover of agricultural services market in Romania, was presented comparative figures relative to the overall national level. Data are the total raised, and two-dimensional, respectively, market services rendered to the population and services for businesses. Based on weighted turnover for agricultural service market structure types were found:

Structure of turnover of agricultural services market in Romania during 2003-2009 (the total national service = 100%)%)

Table 1

Structure of services	2003	2004	2005	2006	2007	2008	2009
TOTAL MARKET SERVICES	0,22	0,19	0,17	0,13	0,06	0,08	0,10
agriculture of which:							
Services for businesses of which:	0,23	0,21	0,18	0,14	0,06	0,08	0,10
- land transport	0,04	0,03	0,12	0,04	0,03	0,04	0,19
- maritime and fluvial transport				0,01	0,01	-	-
- storage, handling, act. annexes for. transport	0,01	0,02	0,02	0,04	0,02	0,02	0,04
- real estate	0,13	-	0,18	0,35	0,02	0,01	0,01
- research and development	12,79	12,60	9,04	6,57	3,54	4,75	4,91
- veterinary activities				-	-	0,31	0,78
- landscape activities				-	-	0,39	0,38
- leases, rehabilitation activities, sanitation etc.	0,67	0,59	0,43	0,29	0,13	-	-
- activities of architecture, technical analysis	0,04	0,01	0,01	0,01	0,01	-	-
- legal activities accounting, market research and survey, for consultations. business and management, secretarial	0,01	0,01	-	-	-	-	0,01
- waste disposal	0,74	0,59	0,90	0,40	0,14	-	-
- other services	0,16	0,42	0,01	0,05	-	0,12	0,04

- The turnover represents *total market services for agriculture registered a rate of decline compared with the national level*, which reached 0.08% decrease in 2008 and 0.10% from 0.22% in 2003. Is considered the most significant decrease after 2006 to which there is a reduction by half;

- The category of *services for businesses in agriculture*, also reflected a decrease in both total and their structure. So significant elements can be mentioned: the highest weight category was R & D in 2003 to 12.79%, reached in 2008 to 4.75%, and in 2009 to 4.91%; categories and fluvial shipping, rentals, architectural, legal and market research activities, waste disposal, the significant downward trend, there is a totally non-existence for the past years, the last year (2008 and 2009) an occurrence of

delimitation and registration category of veterinary services and agricultural landscape, which are otherwise specific agricultural industry.

If a comparative analysis of percentage structure types of services the national economy, to a decreased turnover of agricultural services, plus an uneven, pointed to other categories of services in recent years. Dynamic analysis of the level of value and services indices in agriculture in Romania, was analyzed is shown in absolute and relative. Elements of comparison followed forms and levels of total agriculture and comparison base of 2003. The main issues raised are:

Table 2. The index value and services of agriculture in Romania during 2003-2010

Specification		2003	2004	2005	2006	2007	2008	2009	2010
THE PRODUCTION OF SERVICES IN AGRICULTURE									
The production of agricultural services	thousand	375056	391783	394817	473788	684817	716031	751303	557251
	% towards total income from farming	0,9	0,7	0,8	0,9	1,5	1,1	1,25	0,9
INDICES OF AGRICULTURAL PRODUCTION SERVICES									
indices service agricultural	% towards 2003	100,0	104,4	105,2	126,3	182,5	190,9	200,31	148,57
	% towards previous year *	84,7	86,4	86,0	107,0	132,5	90,9	105,2	73,5
	% towards agriculture to total GDP	1,6	1,2	1,6	1,9	2,8	2,0	2,37	1,77

* According to Eurostat methodology "economic accounts in agriculture"

- The value of national agricultural services, was in an annual increase. In 2009, there was 751.303 million lei, and in 2010 557,251,000 lei to 375,056,000 lei in 2003. By analysis of the total agricultural income growth is a

significance. Growth in 2003 is 0.9% in 2007 compared to the level reaches 1.5% in 2009 to 1.25% and in 2010 is represented by a decrease whose level is 0, 9%;

- Annual review of revenue services in agriculture continued with annual comparisons to 2003, agricultural GDP the previous year. Compared to 2003, considered base year, there is a growing, with special reference to growth more pronounced in 2006-2010 (from 26.3% to 100.31%), up from previous year are recorded annually, with declines in 2003-2005, followed by increases in 2006-2007 and 2009-2010, growth of total GDP of agriculture played by comparative levels of annual income services within the same growth rates (between 1.2% and 2.8%).

In this case the services of agricultural income comparisons analysis shows annual growth rhythm of which can be considered significant in Romanian rural market structure.

Knowing the structure of revenues from services related to agriculture specificity wide selection reflects the influence of data generated by the repercussions of plant and animal evolution. Direction and level of knowledge of these influences by using the *coefficient of elasticity was determined influence crop production / animal (x) on agricultural services (y) in Romania*. The data presented can be interpreted as an interdependence of the existing level of production plant / animal services. The three forms of elasticity (E, E', E'') are played successively levels of influence, the dynamics 2003-2010, from which emerge the following:

Table 3. The coefficients of elasticity created by the influence crop production / animal (x) on agricultural services (y) in Romania

Years	Influence of crop production (x) the services of agriculture (y)			Influence of animal production (x) the services of agriculture (y)		
	E	E'	E''	E	E'	E''
2003	0	0	1,82311	0	0	1,2590
2004	0,094923	0,094923	-7,24062	0,232537	0,232537	1,6953
2005	0,669519	0,001222	-0,06935	0,182838	0,095762	2,1162
2006	1,261683	-0,22526	2,994355	0,785524	5,487633	1,8852
2007	7,633784	-5,35899	0,450996	2,793349	-15,073	0,4028
2008	1,188724	0,06957	-0,1421	1,999735	0,371526	0,3787
2009	2,648833	-0,19836	0	1,518899	0,348118	0
2010	0,75	-1,19	-1,19	1,09	1,99	1,99

Note: In calculations we used the fixed E (2003), the chain E '(previous year), based on last year's "(with levels highest value).

-Influence crop production (x) the services (y), plays an evolution that starts from correlative forms of elasticity. For a fixed base year 2003 (E), only the period 2006-2009, the majority coefficients are higher than one ($E > 1$), may be classified a form of direct influence on crop production services. For the chain (E '), coefficients interpretation is differentiated levels of annual fluctuations within a lack of elasticity (in 2004, 2005 and 2008), a reverse elasticity (in 2006, 2007, 2009 and 2010). Elasticity for 2009 (E ") who experience the highest level of income, within forms: direct form of influence in 2006 ($E' > 1$), lack of elasticity in 2007 ($1 > E'' > 0$) ; inverse elasticity during 2004.2005, 2008 and 2010 ($E' < 0$).

- By analyzing the influence of animal production (x) the services (y), similar phenomena arise for all forms of the comparison of elasticity. Record for the 2004-2010 period fixed levels $0.23 \rightarrow 1.51$, and for the chain for most years there is a tendency to lack of elasticity ($1 > E' > 0$). For the year 2009 (year with highest level of service revenue) levels of elasticity is $0.37 \rightarrow 2.11$.

By all three forms of flexibility is significant given the increasing trend in the influence of farm income (the plant / animal), the services, along with a favorable outcome (growth) revenue services.

Conclusions

- Comparison with the overall level of the services are agricultural economy there is still low even tended to decrease (relative figures reflect this)

- Revenue services in the agricultural sector increasing annual production are rising, which is reflected both in absolute figures presented, and the share of total revenues and GDP in agriculture. The growth rate is much lower for agriculture to other types of services in the national economy.

- Influence of farming sectors (plant / animal) occurs in a direct form of services, but must always take into account the response factors of the annual variations, with special reference on the seasonal agriculture. In this situation can fit the specific features of consumer and agricultural production for which a specific form of

expression by appropriate compartment rural area. The basis of this behavior is given by the holding agricultural activities, so that knowledge requires appropriate factors that particularly highlights the conflict created between the arrangements for these services: modernism ↔ traditional or intensive green.

- Services sector can be a way of redressing the development of agriculture in Romania, contributing to the development of this sector, with influence on mitigating seasonality, creating new jobs, to limit the final departure and even attract people from areas border. Also in the agricultural system of production must be encouraged and new forms of diversified forms agro service activities, information, veterinary, landscaping, etc., which currently are low in their market structure in rural areas.

- Interdependence and boundaries manifested in performance benefits of agricultural services, agricultural activity signals across boundaries of space-related areas: the emergence of the field activities in agricultural production, economic functions performed in agriculture, consumer behavior of the recipient (user) represented the farm, presence / absence of the consumer during service provision and so on. Always be taken into account that there are many situations in which to provide its services in agriculture on the one seem the same need can be satisfied in several ways, with different services, and on the other side defending the need for extension services and other spheres of activity in rural areas.

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