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TOBACCO MARKET IN ROMANIA. MANIFESTATIONS, LIMITS AND CONSTRAINTS

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Abstract.
This paper assembly aims to identify the die circuit tobacco policy in Romania, which is the very market for this product (with reference to the production flow→ processing → consumption). The paper has been played through the structural analysis that began with the planted areas and achieved yields, tobacco processors and labor input, Romania's foreign trade in tobacco products. The levels comparative analysis performed in the whole flow indicators of tobacco chain, was supplemented by appropriate statistical indicators (the arithmetic mean, the standard deviation, the coefficient of variation) of whose interpretive meaning captured variation elements of the period 2007-2012 dynamics.

Keywords: the foreign trade, the tobacco supply chain, the turnover.

1. Introduction

The whole work aims to show the results focused on the chain policy, through the manifestations of the tobacco market in the production flow → processing → consumption in Romania. The results observed in the structure of the work, itself plays an analysis with a structural shape that begins with the areas and production of the culture, processors, labor input and Romania's foreign trade in tobacco products.

In the first years after accession, the tobacco industry in Romania increased through subsidies [5] . Since 2010, the market collapsed, due to the fact that subsidies have declined substantially. It was a lack of communication between the authorities and farmers. Subsidies system was changed to grant subsidy per kg to the surface. In the present there are approx. 800 farmers in the APIA registers that want to access tobacco subsidy. Each of them have in the back 5-10 families for accomplishing the production.

From a national analysis it is shown that tobacco growers invest € 2,000 per

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hectare, with a profit of up to 700 euros [5] . But it can be mentioned that there are unused quantities of tobacco, on that basis - is supposed that tobacco does not has the quality which makes it refused to the takeover.

The tobacco growers believe that the subsidy of almost 1,300 euros per hectare is very low, given that until 2010 the aid was of 2,600 euros per hectare.

The investment for the cultivation of one hectare of tobacco amounts up to 2,000 euros and profit reaches 700 euros per hectare [5] .

The biggest crops are in the Transylvanian Plateau - the upper Mureş - , Carei area - Satu Mare - the Moldavian Plateau - from Suceava to Iaşi – but also Muntenia and Oltenia area. Over 60% of farmers cultivates tobacco Barley, which goes to export. In the country, they sell tobacco Virginia type [4].

2. Materials and methods

The paper aims the substantiation of a set of events in the sector of the tobacco market. The approach of the problem required the use of specific indicators (synthetic and derivatives) through which are known and presented specific problems at the national market chain within the period 2007-2012.

The calculation basis was the existing data of the National Institute of Statistics, pursuing a highlight of the levels achieved by processing the indicators and their interpretation.

Methodological, the synthetic and derived indicators were expressed quantitative and as a percentage, at which through comparative forms in the years succession were followed the yearly levels.

Were used the following statistical indicators: the arithmetic mean, the standard deviation, the coefficient of variation and the statistical significance of these indicators[1], [3].

The coefficient of variation can be: between 0-10% - little variation; 10-20% - medium variation; over 20% - big variation.

3. Results and discussions

a. Areas and productions on tobacco culture in Romania.

Growing tobacco is considered a profitable field agricultural activity. This follows from the comparative analysis, which in the agro food economy in Romania, shown in Table 1, regarding the tobacco industry, it can be seen:

Table 1) The Romania and the EU agro-food economy structure in 2012

Specification	The agro food economy structure in Romania		The agro food economy structure in EU	
	Total	PA / PAA	Total	PA / PAA
	%	%	%	%
Agriculture (PA)	60.70	0.58	25.00	3
Food Industry	(35.20)	x	(60.90)	x
Tobacco products industry	(4)	x	(7.90)	x
Fish farming	(0.10)	x	(6.20)	x
Total PAA	39.30	1	75.00	1
TOTAL	100.00	x	100.00	x

Source: Processed from The national strategic framework for the sustainable development of the agri-food sector and Romanian rural areas in the period 2014 - 2020 2030 CRPCIS, 2012 [10]

- From the analysis of the whole agri-food economy structure, as shown in the comparative values, we find that the share of agriculture in Romania is very high compared to the food industry (60.7% levels are compared to 25%). From the structure investigations we found that tobacco industry's share is 4%;

- Comparative with the structure of the economy of the whole EU, it is shown that the largest share has the agri-food industry (60.9%), agriculture is much below at this level (only 25%). Also tobacco industry accounts 7.9%, which is a lower level.

In part, these differences can be justified by the fact that for the tobacco growers in our country [5][6] , it is found an insufficient number of processing companies. This constitutes a great deficiency, mentioning that at national there are approx. 800 growers. It could be also said that there are five types of tobacco - Oriental, semi-Oriental, Virginia, Burley and great consuming type, and after the privatization of the National Society of Romanian Tobacco, the market dropped and first-processing firms have shifted.

In Table 2 is presented the situation of tobacco production and areas from Romania where for the dynamics 2007-2012 it can be highlighted the following issues:

Table 2) The tobacco surfaces and productions in Romania

Specification	UM	2007	2008	2009	2010	2011	2012	Average / rhythm	Standard deviation	Variation Coefficient (%)
Area	thousand ha	1.1	1.2	0.9	1.5	1.7	1.3	1.3	0.3	22.3
	previous year		*1.09*	*0.75*	*1.67*	*1.13*	*0.76*	*3.40*	x	x
	% Compared to 2007	*100*	*109.0*	*81.8*	*136.3*	*154.5*	*118.1*	x	x	x
Total production	thousand tons	1.1	2.4	1.6	Three	2.6	1.3	2.0	0. 8	38.6
	previous year		*2.18*	*0.67*	*1.88*	*0.87*	*0.50*	*3.40*	x	x
	% Compared to 2007	100	218.1	145.4	272.7	236.3	118.1	x	x	x
Average production	kg / ha	1025	1916	1842	1939	1939	1066	1621.2	447.5	27.6
	previous year		*1.87*	*0.96*	*1.05*	*1.00*	*0.55*	*0.79*	x	x
	% Compared to 2007	100	186.9	179.7	189.1	189.1	104	x	x	x

Source: Romanian Statistical Yearbook, INS, 2013 [9]

- The cultivated areas present oscillations, which annually are between 0.9 and 1.7 thousand hectares, but in comparison to 2007 there is an increasing trend, the annual average is of 1.3 thousand hectares. But these annual changes analyzed by the variation coefficient values fall in a high variation (over 20%);

- The analysis of total and average productions, frame annual variation levels that tend to increase in comparison to 2007. The values fluctuations analyzed according to the variation coefficient highlight also a great variation (over 20%), indicating that the values that express this variation are much higher than those of the areas.

b. The tobacco processing enterprises and their results in the activity.

Understanding the main characteristics of the tobacco market in Romania throughout the chain defines the following segments [5] : *a)* first segment is represented in by the tobacco producers. They are not allowed to make processing and production, but to cultivate and harvested tobacco for the market intermediaries; *b)* the intermediaries that interpose between growers and manufacturers of cigarettes, they are being called also as first processors (which is the second segment of market), which are responsible for the preparation of tobacco production: *c)* companies that produce cigarettes through specific technologies (which is the third segment) and for which the processing and cultivation of tobacco is prohibited [2].

Mainly, for the tobacco processing sector the question is of knowledge both the number of firms that produce tobacco, and especially their results. In *Table 3* for the period 2007-2011 are given the turnover and the number of enterprises, significantly based on the following:

Table 3 - Number of enterprises and their turnover technology tobacco products in Romania

Specification	UM	2007	2008	2009	2010	2011	Average /rhythm	Standard deviation	Variation Coefficient (%)
Number of enterprises	Number	18	16	15	13	9	11.8	6.6	55.4
	Compared to the previous year		0.89	0.94	0.87	0.69	-100.00	x	x
	% Compared to 2007	100	88.88	83.33	72.22	50	x	x	x
Total turnover	thousand lei Total	3,395	4,136	2,390	2,166	2,314	2,880.2	853.4	29.6
	Compared to the previous year		1.22	0.58	0.91	1.07	-9.14	x	x
	% Compared to 2007	100	121.8	70.39	63.79	68.15	x	x	x
The average turnover per firm	Thousand lei / enterprise	188.6	258.5	159 3	166.6	257.1	x	x	x
	Compared to the previous year	x	137.06	61.62	104.58	154.32	x	x	x
	% Compared to 2007	100	137.06	84.46	88.33	136.32	x	x	x

Source: SMEs in the Romanian economy, INS, Romania, 2010-2013[9]

- Regarding the number we can observe a significant decrease (the existence of a number of 18 in 2007, in 2011 there are only 9). Comparisons with the previous year, especially compared to 2007, are inferior. Annual oscillation based on these annual reductions determined by the coefficient of variation (over 20%), being at the 55.4% level;

- The turnover still plays on its total an annual decrease, but whose rate is much lower than the decrease in the number of enterprises. The coefficient of variation on the same indicator falls into the great scale (over 20%), which is below the level that expresses the number of enterprises;

- But on the average of the enterprises turnover there is an increasing trend for both comparison base – to the previous year and to year 2007. It can be mentioned the situation of the reduction of the turnover total in 2009 that influenced the indicators levels in the coming years.

Synthetically, it can be signalized the quantitative aspect linked to the enterprises number decrease (in the last year of analysis is half compared to the first year), together with the qualitative aspect of the level of turnover which is witnessing a decline in total (but in a slower rhythm), along with an increase in the average turnover per enterprise.

c. The tobacco processing enterprises and their results in the activity.

The employment and the earnings from tobacco products in Romania, analyzed in the period 2007-2012, is a continuation of the overall analysis. Regarding this problem, the data shown in Table 4 highlights the indicators level in absolute and relative data, the following aspects:

Table 4. The employees and the earnings from tobacco production in Romania

Specification	UM	2007	2008	2009	2010	2011	2012	Average/ rhythm	Standard deviation	Coefficient of variation (%)
Actual employees	Number	1,818	1,648	1,616	1,514	1,568	......	1,632.8	115.2	7.1
	Compared to the previous year		0.91	0 .98	0.94	1.04		-3.63	x	x
	% Compared to 2007	100	90.64	88.88	83.27	86.24	-	x	x	x
Average no. of employees	Number	1,818	1,618	1,591	1,520	1,458	......	1,601.0	136.5	8.5
	Compared to the previous year		0.89	0.98	0.96	0.96		-5.37	x	x
	% Compared to 2007	100	88.99	87.51	83.60	80.1 9	-	x	x	x
Monthly average net nominal earnings (total economy)	lei per month	1,042	1,309	1,361	1,391	1,470	1,541	1,352.3	172.7	12.8
	previous year		1.26	1.04	1.02	1.06	1.05	8.14	x	x
	% Compared to 2007	100	125.62	130.61	133.49	141.07	147.88	x	x	x
of which: in tobacco production	lei per month	2,136	2,623	2,852	3,224	3,581	3,721	3,022.8	602.5	19.9
	% Compared to the national economy	204.99	200.38	209.55	231.77	243.60	241.46			

	Compared to the previous year		1.23	1.09	1.13	1.11	1.04	11.74	x	X
	% Compared to 2007	100	122.79	133.52	150.93	167.65	174.20	x	x	x

Source: Statistical Yearbook of Romania, INS, 2013 SMEs in the Romanian economy, INS, Romania, 2010-2013 [9]

- The number of employees and its average number are in an annual decrease, which is marked both by comparison to the previous year, but also compared to 2007. Since the decreases oscillations in the annual variation are low and the variation expressed by the coefficient of variation falls within a low variation (less than 10%), the values were of 7.1% and 8.5%;

- The earnings from the tobacco products, expressed in lei / month, play an increase in the annual dynamics. This increase is significant in comparison to the national level as well as to previous year and to comparison with the base year 2007. The upward trend analyzed through the expression from the calculation of the coefficient of variation of 19.9% , fall into a middle variation (between 10-20%).

It follows that even if the workforce used for tobacco products has an annual trend of decrease, the net nominal earnings per month recorded significant annual increases.

d. Consumption, foreign trade and tobacco subsidies in Romania

The foreign trade policy is a form of the relations that can be evidenced by import and export. It may be mentioned that Romania consumes approx. 40,000 tons of tobacco per year and produce up to 2,000 tons, which means that all Romanian tobacco cope the market competitiveness [5] .

The tobacco consumption in Romania, (restored in 2004) is appreciated by a national level of tobacco consumers at 62.1%, which can be evidenced by the structural situation, on the following criteria [7] :

- On gender, representation is: male 75.4% , female 48.7%;
- The age group (years), which can play the following structure: 15-24 → 61.8%, 25-34→ 70.5%, 35-44 → 65.0%, 45-54 → 62.7 %, 55-64→ 44.2%;
- The educational level: primary studies 33.3%, 45.4% for incomplete secondary studies, secondary studies 65.8% and 76.0% for higher studies;
- The socio-economic level is given by: low income 58.5%, average income 67.6%, and high income 82.0%;
- The residence: rural 53.9%, small urban 67.5%, high urban 68.5%;

- The territorial form can be presented by region as follows: 62.9% Moldova, Muntenia 54.6%, 54.9% Oltenia, Dobrogea 53.6%, 68.2% Transylvania, Banat-Crişana-Maramureş 63.8%, Bucharest 73.0%.

However an analysis at the national level for the external trade for the tobacco products rise the question of imports and exports of raw and processed tobacco. In *Table 5* is shown the situation for 2007-2012, which finally summarize the foreign trade balance for this product. You can find the following:

- The Export of raw and processed tobacco. The dynamics of 2007-2012, recorded a growth trend, analyzed in terms of value (expressed in thousand euros) and compared (in%) from the previous year and from the year 2007. Analyzing the oscillations of annual rates we found very high variations, the significance of the coefficient of variation was of 36.5%, which signifies a high variation (over 20%);

Table 5. Comet outside for tobacco products in Romania

Specification	UM	2007	2008	2009	2010	2011	2012	Average / rhythm	Standard deviation	Variation Coefficient (%)
Export (raw and processed tobacco)	million euros	139	265	368	386	460	474	348.7	127.1	36.5
	% to previous year		*1.91*	*1.39*	*1.05*	*1.19*	*1.03*	*27.81*	x	x
	% Compared to 2007	100	190.6	264.74	277.69	330.93	341.00	x	x	x
Import (raw and processed tobacco)	million euros	156	176	190	157	229	260	194.7	41.8	21.5
	% to previous year		*1.13*	*1.08*	*0.83*	*1.46*	*1.14*	*10.76*	x	x
	% Compared to 2007	100	112.8	121.7	100.6	146.7	166.6	x	x	x
Foreign Trade Balance	million euros	-17	91	179	230	241	217	156.8	101.1	64.5
	% to previous year		*-5.35*	*1.97*	*1.28*	*1.05*	*0.90*	*-266.4*	x	x
	% Compared to 2007	100	-535.2	-1052.9	-1352.9	-1417.6	-1276.4	x	x	x

Source: SMEs in the Romanian economy, INS, Romania, 2010-2013 [9]

-The import is represented also by increases rendered as value and percentage, but it is recorded a lower level of the annual fluctuations. The coefficient of variation is of 21.5%, which falls into a high variation representation (over 20%);

- The foreign trade balance with raw and processed tobacco, is positive for

the period 2008-2012.
It may be mentioned that at this favorable trend we have significant oscillations that are played by a very high value of the coefficient of variation (64.5%).

The common market organizations, as organizational forms (attributional-functional) are considered as a tool of the OCP, that the structure of the main food includes direct aid to tobacco, covering about 10% of Community agricultural production.

For Romania, the subsidies development in recent years (2007-2013) for the tobacco crop, shown in *Table 5,* highlights the rhythms of these subsidies, which in particular it may be mentioned the following:

Table 5. The tobacco subsidies evolution in Romania (the national budget funding source PNDC)

The subsidy type	UM	2007	2008	2011	2012	2013	Average / rhythm	Standard deviation (million euro)	Coef. Var.(%)
Total subsidies	thousand euros	1,710	3,917	1,719	1,312	....	2,589	1,279	49.4
	% to the previous year	-	2.29	69	76	... ..	-5.15	x	x
	% Compared to 2007	100	229.06	100.52	76.72	-			
Subsidies per hectare (PNDC 4)	euro / ha	2,000.0	2,000.0	1,167.6	1,200.0	1,300.0	1,760	554	31.49
	% to the previous year	-	*One*	*0.44*	*1.03*	*One*	-6.93	x	x
	% Compared to 2007	100	100	58.38	60	65			

Source: APIA data [8]

- For total subsidies for the tobacco crop we can see an annual variation rhythm at which the average for the period is of 2,589 million Euro. The oscillations by calculating the coefficient of variation falls within the high variation (over 20%), which is given by the level of 49.4%;

- The analysis of the subsidies per hectare for the period under review reflects a decrease in the annual oscillations within the coefficient of variation at the level of 31.49% (which is a high variation represented by the values above 20%).

So in case of payment by the FEADR and the national budget and for tobacco culture there were increases in funds allocated and annual variations noting that the variation coefficient values are assigned to the large group. Note that after the EU accession of Romania, the restructuring process and the alignment with the other countries agriculture progressed slowly, without visible consequences in terms of structural and functional compatibility of the tobacco chain.

The insufficient adaptation of the policies to this branch, was due to reduced capacity for the absorption of both policies, viewed in terms of increasing structural and functional compatibility and also in financial terms (absorption of funds for rural development). To all, it can be added the adaptability form still inadequate of the Romanian supply of tobacco products on the European market.

Conclusions

The study carried out by an interdisciplinary approach highlights existing events and limits regarding the activities of the tobacco market in Romania being evidenced the commercial purpose, adapting the production possibilities to the consumers' needs or desires. These can be rendered synthetic by socio-economic conclusions.

(1). In Romania there is an annual consumption of tobacco products by approx. 40,000 tons annually, and this consumption level, according to a presumptive presentations can be played by a structure of the form: predominance of men (75.4%), the age groups 25-34 (70.5%), the people with higher education (76.0%), those with a high average level of education (82.0%) , for people in the residence which is in higher urban areas (68.5%), the territorial predominance is for Bucharest Region (73.0%).

(2). The results focused on the tobacco chain policy (production → processing → consumption) within the areas and yields tobacco crop structural form, which for Romania we found an annual oscillating level for surfaces and productions. The grants for the tobacco culture record an annual decrease, with an annual variation rhythm, the rate oscillations signifies a great variation.

(3). Regarding the number of the processing enterprise, it can be seen a sharp drop of their number, tendency manifested also on turnover. For this indicator the coefficient of variation falls at a high level of variation, along with an increase in turnover on the enterprise.

(4). The number of employment and the average number of the employees are in an annual decrease, but the earnings for the manufacture of tobacco products, play an increase. It is signaled the existence of oscillations, a trend emerged from the calculation of the coefficient of variation falling into a middle variation (10-20%).

(5). The foreign trade as value and percentage for raw tobacco and processed plays the following aspects: the export register a growth trend, manifesting fluctuations of annual levels for which the significance of the variation coefficient is high ; the import is represented by increases, but the annual oscillations rhythms are recorded at a low level , employing a large variation representation; the foreign trade balance is positive manifesting a favorable trend, and also the existence of significant oscillations that are played by very high value of the coefficient of variation.

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