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Application of a new method for evaluation of the readiness of producers/ traders for conversion to organic production/ trade

Key words: organic production, organic trade, conversion

Summary: This paper studies the opportunities for application of a new method elaborated by the author (1) for evaluation of the readiness of producers and traders for conversion to organic production or trade. The method was created as a result of a study of organic sector development and it is based on the determination of the most important factors in this development. The method relies on a simple evaluation scheme and calculations. It turns to be useful as just a pilot investigation of the five most important factors stated as indicators: preparation (in terms of knowledge and skills of managers/ entrepreneurs), motivation, resources, planning activities skills (considered separately of others because of their particular importance in the 'organic' approach), environmental protection and organic production measures undertaken recently.

The investigation presented in this paper puts the method developed on theory into practice. Furthermore, it proves the conformability of the proposed method and its possible usefulness.

In addition, the steps in starting the conversion are proposed in which an approach very different from the one used till now (based on the choice of a new production technology) is adapted. The accent here is on the management, overall control over the processes and achieving sustainable growth.

1. Introduction

Sustainable development is a fundamental goal in the contemporary world. The main question is how to achieve it once the aims are set in a number of strategies on different levels, i.e. how to involve all the groups in society. On the one side there are consumers (demand), on the other—producers (supply). It is for sure that demand is for safety and health and this should have impacts on the supply chain.

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In its policy the EU has put many times an emphasis on organic production as one of the methods for achieving sustainable development. The Reform of the Common Agricultural Policy (CAP) also appeals for promoting quality instead of quantity. Fostering the organic production sector as well as the other environmentally friendly methods for agricultural treatment is more than necessary for increasing entrepreneurial initiatives in rural areas (2).

Organic production follows the same principles in their essence in the whole world but in accordance to local social, economic, cultural and other characteristics.

According to the definition of International Federation of Organic Agriculture Movements (IFOAM), 'Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit shared environment and promote fair relationships and good quality of life for all involved' (3).

The aims of organic farming are to protect: a) the environment, by using organic management practices that do not have adverse effects of conventional practices, and b) the health of consumers, by the provision of organic products (4).

Organic farming as a way of thinking and a practice starts in the first years of the 20th century and today increasing number of farmers convert to organic because of the opportunities it provides for safe and healthy food, environmental protection and marketing benefits.

Sustainable development is one of the pillars of strategic management. Companies aim to survive and earn above the average as they compete with their rivals. Besides an ongoing cut-throat competition, companies start to give more importance to the future (5).

An entrepreneurial approach allows firms the flexibility to address the unique nature of natural environmental opportunities and the challenges posed by unique green markets (6). Reaching high competitiveness is a key objective. Organic production/trade provide a sustainable competitive advantage.

The increasing interest in organic farming and trade in recent years makes many producers and traders think about the opportunities that organic products provide on the market and advantages in fulfilling environmental and EU financing schemes requirements. But the decision to undertake conversion is not an easy step. It should be based on profound analyses of internal and external environment. For a small- or medium-size producer/ trader it is not feasible and profitable to do this by him/ herself or to pay to consultants to do this at the very beginning of the idea about organic conversion. There is a need of a fast and easy assessment if there is a sense to proceed.

Above all, contemporary farmers should be good managers. Permanent changes in the globalizing world impose new skills and approaches. Thus the increase in demand of organic product leads to increasing organic areas and number of organic farmers, processors and traders as a result of searching for entrepreneurial and innovative methods guaranteeing profit making and sustainability.

This paper concerns the elaborated method as theoretical instrument from a different point of view—the feasibility of its application into practice, and proposes a tool for making analyses concerning organic development and an approach in initial steps in conversion that could be widely used. Thus the aim of this paper is to present a new method and its approbation accompanied with specific recommendations for organic conversion steps in accordance with 'organic' essence and sustainability issues.

2. Material and methods

This paper uses a method (1) based on the necessity of use of integrated approach in organic production & trade as well as the statement that above all organic production is a way of thinking and good management. The method is recommended to be used by organic producers or traders for evaluation of weak points and directions for improvements.

The method uses 5 indicators with 10 criteria each (Table 1).

Table 1
Criteria and indicators set through the proposed method

No.	Indicators & criteria	
1	Evaluation of the level of preparation	
1.1	Knowledge in the field of the legislative base in organic production/ trade	
1.2	Knowledge in principles and methods of organic production]
1.3	Knowledge of the regional characteristics]
1.4	Knowledge in the field of economics and management of farms/ firms]
1.5	Knowledge in the field of environmental protection	Criteria that are evaluated for
1.6	Organization and management skills	indicator #1
1.7	Communication skills]
1.8	Skills for taking decisions and risk assessments]
1.9	Skills for making strategies]
1.10	Skills for doing analyses of inner and outer environment]
2	Evaluation of the level of motivation	
2.1	Protection of components of environment	
2.2	Concern about the future	
2.3	Higher prices of production	
2.4	Provision of tasty and healthy food	
2.5	Diversification of activity	Criteria that are evaluated for
2.6	Opportunities for financing by European and national programmes	indicator #2
2.7	Increasing demand and good perspectives for organic sector development	
2.8	Image	
2.9	Wish for additional training in the field	
2.10	Searching for extended services	

No.	Indicators & criteria	
3	Evaluation of resources	
3.1	Land, production and warehouse facilities	
3.2	Machines, installations, equipment	
3.3	Own financing	
3.4	Financing by external resources	
3.5	Partnerships in the country	Criteria that are evaluated for
3.6	Partnerships abroad	indicator #3
3.7	Manpower	
3.8	Suppliers of raw materials and stuffs	
3.9	Marketing channels	
3.10	Sources of pollution of the region	
4	Evaluation of the skills for planning the activities	
4.1	Coordination	
4.2	Continuity	
4.3	Purposefulness	
4.4	Flexibility	
4.5	Initiation	Criteria that are evaluated for
4.6	Decisiveness	indicator #4
4.7	Functionality	
4.8	Actuality	
4.9	Innovation	
4.10	Optimality	
5	Evaluation of the measures undertaken during the last 3 years for prot of components of environment/ organic production for:	ection
5.1	Improvement of soil conditions	
5.2	Crop rotations	-
5.3	Fertilization	
5.4	Soil cultivation	
5.5	Diseases, pest and weeds control/ Prevention and medication of animal diseases	Criteria that are evaluated for
5.6	Mechanization and manpower	indicator #5
5.7	Protection of natural habitats	
5.8	Choice of varieties and breeds	
5.9	Choice of technology (incl. human attitude towards animals)	
5.10	Documentation and accountancy	

Table 3

The results are presented in the tables (Table 4 and 5). For each criterion an evaluation of the level of implementation (*Nk*) is made according to the following scale: 1—very low, 2—low, 3—satisfactory, 4—good, 5—very good.

Weight coefficient (Kk) is determined that way that for every one indicator to be 1 (Kn).

The evaluation of the criteria (Ek) is determined by the following formula:

$$Ek = Kk \cdot Nk \tag{1}$$

Evaluation of the indicators (En):

$$En = \sum_{i=1}^{10} Ek \tag{2}$$

Overall evaluation *Et*:

$$Et = \sum_{n=1}^{5} En \tag{3}$$

Calculated that way overall evaluation *Et* has a minimum value of 5 and a maximum of 25. Two scales of assessment are elaborated because of the specifics of the fifth indicator (Table 2 & 3) concerning separately organic production and trade.

Table 2 Scale for assessment readiness for conversion to organic production

Et		Assessments of	randinass
from	to	Assessments of	reaumess
5	12	1	very low
12	15	2	low
15	20	3	satisfactory
20	23	4	good
23	25	5	very good

Source: Author's own study.

Scale for assessment of readiness to conversion to organic trade

Et		Assessments of	randinaga
from	to	Assessments of	readilless
5	8	1	very low
8	12	2	low
12	17	3	satisfactory
17	22	4	good
22	25	5	very good

3. Results

The method was tested with 5 agricultural producers (AP) from the region of Plovdiv at the moment they were applying for financial support through measure 112 'Setting up of holdings of young farmers' of the Rural Development Programme 2007–2013 of the Republic of Bulgaria, supported by the European agricultural fund for rural development.

The tables were filled in by AP1 by his own because of his wish to try to do it by himself. Other APs were interviewed for making self-evaluations and for filling the tables because they asked for some explanations.

Evaluation of the indicators in the proposed method shows that AP1 has higher values than others except for the resources indicator which are the best for AP2 (Figure 1, Table 4). None reaches the maximum evaluation.

The overall evaluation is the highest for AP1 (18.65) but still satisfactory according to the proposed scale (Figure 2, Table 4). AP2 with 15.95 enters group in the scale too but still on the border with the low readiness for conversion to organic production. For AP3 the assessment shows low results, for AP4 and AP5—very low.

This method was applied to 3 food retailers (T) in the region of Plovdiv (Table 5) interviewing them to make self-evaluations. T3 shows the best indicators evaluations (Figure 3) and an overall evaluation of 14.5 (Figure 4)—satisfactory readiness for organic retail. T2 has a satisfactory result, T1—low readiness. All of them have undertaken very few measures during the last 3 years for protection of components of environment/ organic production. For T1 there is a need of gaining some skills to plan the activities.

Table 4

Results of application of the method—agricultural producers (APs)

1		Coefficient	API	P1	Ā	AP2	Ā	AP3	AP4	4	Ā	AP5
o N	Indicators & criteria	\mathbf{K}^{a}	$N^{ ho}$	Ec)	NĶ	Э	ŊĶ	Э	Ř	Э	Nk	田
-	Evaluation of the level of preparation	1.00		4.1		1.9		2.05		1.75		2.8
1.1	Knowledge in the field of the legislative base in organic production/ trade	0.10	2	0.2	_	0.1	_	0.1	1	0.1	2	0.2
1.2	Knowledge in principles and methods of organic production	0.15	4	9.0	-	0.15	1	0.15	1	0.15	2	0.3
1.3	Knowledge of the regional characteristics	0.05	4	0.2	5	0.25	2	0.1	3	0.15	4	0.2
1.4	Knowledge in the field of economics and management of farms/ firms	0.15	4	9.0	2	6.0	8	0.45	1	0.15	3	0.45
1.5	Knowledge in the field of environmental protection	0.05	4	0.2	3	0.15	3	0.15	2	0.1	3	0.15
1.6	Organization and management skills	0.10	4	0.4	3	0.3	2	0.2	2	0.2	3	0.3
1.7	Communication skills	0.10	5	0.5	2	0.2	3	0.3	3	0.3	3	0.3
1.8	Skills for taking decisions and risk assessments	0.15	5	0.75	2	0.3	7	6.0	7	0.3	3	0.45
1.9	Skills for making strategies	0.10	4	0.4	1	0.1	7	0.2	2	0.2	3	0.3
1.10	-	0.05	5	0.25	1	0.05	7	0.1	7	0.1	3	0.15
7	Evaluation of the level of motivation	1.00		4.45		3.9		3.3		3.2		3.2
2.1	Protection of components of environment	0.20	5	1	4	8.0	8	9.0	2	0.4	2	0.4
2.2	Concern about the future	0.10	5	0.5	3	0.3	7	0.2	2	0.2	2	0.2
2.3	Higher prices of production	0.05	3	0.15	5	0.25	4	0.2	5	0.25	5	0.25
2.4		0.05	4	0.2	4	0.2	8	0.15	3	0.15	3	0.15
2.5	Diversification of activity	0.05	4	0.2	4	0.2	4	0.2	5	0.25	5	0.25
2.6	Opportunities for financing by European and national programmes	0.05	4	0.2	5	0.25	5	0.25	5	0.25	5	0.25
2.7	Increasing demand and good perspectives for organic sector development	0.05	5	0.25	3	0.15	8	0.15	3	0.15	3	0.15
2.8	Image	0.05	3	0.15	3	0.15	3	0.15	3	0.15	3	0.15
2.9	Wish for additional training in the field	0.20	5	1	3	9.0	3	9.0	3	9.0	3	9.0
2.10		0.20	4	8.0	5	1	4	8.0	4	8.0	4	8.0
က	Evaluation of resources	1.00		2.3		3.75		3.3		1.75		1.75
3.1	Land, production and warehouse facilities	0.20	2	0.4	5	1	5	1	3	9.0	3	9.0
3.2	Machines, installations, equipment	0.20	1	0.2	3	9.0	4	8.0	1	0.2	1	0.2
3.3	Own financing	0.15	1	0.15	4	9.0	3	0.45	1	0.15	1	0.15
3.4	Financing by external resources	0.05	2	0.1	4	0.2	3	0.15	4	0.2	4	0.2
3.5	Partnerships in the country	0.10	4	0.4	3	0.3	3	0.3	-	0.1	1	0.1
3.6	Partnerships abroad	0.10	4	0.4	4	0.4	_	0.1	_	0.1	-	0.1

;		Coefficient	AP	51	AP2	22	A	AP3	A	AP4	AP5	5
No.	Indicators & criteria	$\mathbf{K}_{^{\mathbf{a})}}$	$\hat{\mathbf{Z}}_{\mathbf{p}}$	Ec)	ΝĶ	ш	ž	Ш	ž	Э	Šķ	Э
3.7	Manpower	0.05	3	0.15	4	0.2	2	0.1	7	0.1	2	0.1
3.8	Suppliers of raw materials and stuffs	0.05	3	0.15	3	0.15	3	0.15	7	0.1	2	0.1
3.9	Marketing channels	0.05	3	0.15	3	0.15	3	0.15	2	0.1	2	0.1
3.10	\vdash	0.05	4	0.2	3	0.15	2	0.1	2	0.1	2	0.1
4	Evaluation of skills for planning the activities	1.00		3.9		3.6		2.2		1.3		2.5
4.1	Coordination	0.10	3	0.3	3	0.3	2	0.2	1	0.1	2	0.2
4.2	Continuity	0.10	3	0.3	3	0.3	3	0.3	_	0.1	2	0.2
4.3	Purposefulness	0.10	4	0.4	4	0.4	2	0.2	7	0.2	3	0.3
4.4	Flexibility	0.10	3	0.3	3	0.3	2	0.2	_	0.1	3	0.3
4.5	Initiation	0.10	4	9.4	4	0.4	2	0.2	_	0.1	3	0.3
4.6	Decisiveness	0.10	5	0.5	4	0.4	2	0.2	-	0.1	3	0.3
4.7	Functionality	0.10	4	9.4	4	0.4	3	0.3	7	0.2	3	0.3
4.8	Actuality	0.10	4	9.4	2	0.2	2	0.2	-	0.1	2	0.2
4.9	Innovation	0.10	5	0.5	4	0.4	2	0.2	_	0.1	2	0.2
4.10	Optimality	0.10	4	9.4	5	0.5	2	0.2	7	0.2	2	0.2
	Evaluation of measures undertaken during the last											
v	3 years for protection of components of environment/	1.00		3.9		7.8		2.5		1.5		1.5
٨	Urganic production for:	0.10	v	5 0	4	0.4	3	٥ ع	C	0.0	,	0.0
5.2	Cron rotations	0.10	, (1)	0.3	4	0.4	3)	0.3	2	0.2	2	0.2
5.3	Fertilization	0.10	4	0.4	3	0.3	3	0.3	2	0.2	2	0.2
5.4	Soil cultivation	0.10	4	9.0	3	0.3	3	0.3	2	0.2	2	0.2
5.5	Diseases, pest and weeds control/ Prevention and medication of animal diseases	0.10	4	0.4	3	0.3	3	0.3	_	0.1	1	0.1
9.9	Mechanization and manpower	0.10	4	0.4	3	0.3	2	0.2	2	0.2	2	0.2
5.7	Protection of natural habitats	0.10	5	0.5	1	0.1	2	0.2	1	0.1	1	0.1
2.8	Choice of varieties and breeds	0.10	4	9.4	3	0.3	2	0.2	-	0.1	1	0.1
5.9	Choice of technology (incl. human attitude towards animals)	0.10	3	0.3	2	0.2	2	0.2	1	0.1	1	0.1
5.10	Documentation and accountancy	0.10	3	0.3	2	0.2	2	0.2	1	0.1	1	0.1
	Overall evaluation	5.00		18.65		15.95		13.35		9.5		11.75

Source: Author's own study.

^{a)} Weight coefficient: Kk—for separate criteria, Kn—for indicators as the sum of Kk^{b)} Evaluations of the level of implementation for every one criteria Nk—from 1 to 5
^{c)} Calculated evaluations according to the formulas described in Material and methods: for the criteria Ek (1), for the indicators En (2), overall evaluation Et (3)

Results of application of the method—traders

Table 5

;		Coefficient	I		T2	2	T3	3
No	Indicators & criteria	\mathbf{K}^{a}	$N_{ m p}$	Eo	z	ш	Z	Э
-	Evaluation of the level of preparation	1.00		2.05		3.1		2.85
1.1	Knowledge in the field of the legislative base in organic production/ trade	0.10	1	0.1	2	0.2	2	0.2
1.2	Knowledge in principles and methods of organic production	0.15	-	0.15	2	0.3	2	0.3
1.3	Knowledge of the regional characteristics	0.05	1	0.05	3	0.15	4	0.2
4:1	Knowledge in the field of economics and management of farms/firms	0.15	3	0.45	4	9.0	4	9.0
1.5	Knowledge in the field of environmental protection	0.05	2	0.1	3	0.15	3	0.15
1.6	Organization and management skills	0.10	3	0.3	4	0.4	4	0.4
1.7	Communication skills	0.10	3	0.3	4	0.4	4	0.4
1.8	Skills for taking decisions and risk assessments	0.15	2	0.3	3	0.45	2	0.3
1.9	Skills for making strategies	0.10	2	0.2	3	0.3	2	0.2
1.10	Skills for doing analyses of inner and outer environment	0.05	2	0.1	3	0.15	2	0.1
7	Evaluation of the level of motivation	1.00		2.6		3.2		3.7
2.1	Protection of components of environment	0.20	3	9.0	3	9.0	4	8.0
2.2	Concern about the future	0.10	1	0.1	3	0.3	4	0.4
2.3	Higher prices of production	0.05	4	0.2	4	0.2	5	0.25
2.4	Provision of tasty and healthy food	0.05	3	0.15	3	0.15	4	0.2
2.5	Diversification of activity	0.05	4	0.2	3	0.15	4	0.2
	Opportunities for financing by European and national	0.05	4	0.2	4	0.2	4	0.2
5.6	programmes			!		! ;		
2.7	Increasing demand and good perspectives for organic sector development	0.05	4	0.2	4	0.2	S	0.25
2.8	Image	0.05	3	0.15	4	0.2	4	0.2
2.9	Wish for additional training in the field	0.20	2	0.4	3	9.0	3	9.0
2.10	Searching for extended services	0.20	2	0.4	3	9.0	3	9.0
3	Evaluation of resources	1.00		2.35		2.65		3.35
3.1	Land, production and warehouse facilities	0.20	3	9.0	3	9.0	4	8.0
3.2	Machines, installations, equipment	0.20	3	9.0	3	9.0	4	8.0
3.3	Own financing	0.15	2	0.3	3	0.45	4	9.0
3.4	Financing by external resources	0.05	2	0.1	2	0.1	4	0.2
3.5	Partnerships in the country	0.10	2	0.2	3	0.3	3	0.3

Nb) Ec) N E N E N 1 0.1 1 0.1 1	;		Coefficient	I	1	T2	2	T3	3
Partnerships abroad 0.10 1 0.11 1 1 1 1 1 1 1 1 1	No	Indicators & criteria	\mathbf{K}^{a}	Np	Ec	z	ы	Z	ы
Manipower Manipower 0.05 2 0.1 3 0.15 3 4 Sources of pollution of the region 0.05 2 0.15 3 0.15 3 0.15 3 0.15 3 0.15 3 0.15 3 0.15 3 0.15 3 0.15 3 0.15 3 0.15 3 0.15 0.15 0.11 0.	3.6	Partnerships abroad	0.10	1	0.1	-1	0.1	1	0.1
Suppliers of raw materials and stuffs 0.05 2 0.1 2 0.1 3 0.1 Marketing channels and stuffs channels 0.05 3 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	3.7	Manpower	0.05	2	0.1	3	0.15	3	0.15
Marketing chamels 0.05 3 0.15 3 0.15 3 0.15 3 0.15 3 0.15 3 0.15 3 0.15 2 0.1 2 0.1 2 0.1 2 0.1 2 0.1 2 0.2 3 3 0.1 2 0.2 3 4	3.8	Suppliers of raw materials and stuffs	0.05	2	0.1	2	0.1	3	0.15
Sources of pollution of the region 0.05 2 0.1 2 0.1 2 Evaluation of skills for planning the activities 1.00 1 2 0.1 3 Continuity Continuity 0.10 1 2 0.2 3 Continuity 0.10 1 2 0.2 3 3 Peruposefulness 0.10 1 4 0.4 4 4 Peruposefulness 0.10 1 4 0.4 4 4 4 Peruposefulness 0.10 1 0.1 4 4 4 4 Initiation 0.10 1 0.1 4 4 4 4 Peruposefulness 0.10 1 0.1 1 4 4 4 Actuality 0.10 1 0.1 3 0.3 4 Actuality 0.10 1 0.1 3 0.3 4 Evaluation of measures undertasken durring th	3.9	Marketing channels	0.05	3	0.15	3	0.15	3	0.15
Evaluation of skills for planning the activities 1,00	3.10		0.05	2	0.1	2	0.1	2	0.1
Coordination Coordination 0.10 1 0.1 2 0.2 3 Continuity Continuity 0.10 1 0.1 4 0.2 3 Purposefulness 0.10 1 0.1 4 0.4 3 Flexibility 0.10 1 0.1 4 0.4 4 Decisiveness 0.10 1 0.1 4 0.4 4 Decisiveness 0.10 1 0.1 3 0.3 4 Decisiveness 0.10 1 0.1 0.1 3 0.3 4 Actuality 0.10 1 0.1 0.1 0.1 0.3 3 4 Actuality 0.10 1 0.1 0.1 0.1 0.3 3 4 Perlutation 0.10 1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	4	Evaluation of skills for planning the activities	1.00		1		3		3.4
Continuity Continuity 0.10 1 0.1 2 0.2 3 Purposefulness Purposefulness 0.10 1 0.1 4 0.4 3 Purposefulness 0.10 1 0.1 3 0.3 3 Initiation Decisiveness 0.10 1 0.1 4 0.4 4 Penetionality 0.10 1 0.1 3 0.3 4 Innovation 0.10 1 0.1 3 0.3 3 Inprovaering of components of environment of soil conditions 0.10 1 0.1 1 0.1 1 Inprovaering of conditions 0.10 1 0.1 1 0.1 1 0.1 1	4.1	Coordination	0.10	1	0.1	2	0.2	3	0.3
Purposefulness	4.2	Continuity	0.10	1	0.1	2	0.2	3	0.3
Flexibility 10.10 1 0.11 3 0.3 3 3 5 Initiation 2.10 1 0.11 3 0.3 3 4 Functionality 2.10 1 0.11 3 0.3 3 3 4 Functionality 2.10 1 0.11 3 0.3 3 3 3 3 Functionality 2.10 1 0.11 3 0.3 3 3 3 Functionality 3 0.10 1 0.11 3 0.3 3 3 3 Innovation 2.10 2.10 3 0.3 3 3 3 3 Innovation 2.10 3 0.3 3 3 3 3 3 Innovation 3 0.10 1 3 0.3 3 3 Innovation 3 0.10 1 0.1 3 0.3 3 Innovation 3 0.10 1 0.1 3 0.3 3 Innovation 4 0.10 1 0.1 1 Innovation 5 0.10 5 5 Innovation 5 5 5	4.3	Purposefulness	0.10	1	0.1	4	0.4	3	0.3
Decisiveness	4.4	Flexibility	0.10	1	0.1	3	0.3	3	0.3
Precisiveness 0.10 1 0.1 3 0.3 4 Functionality 0.10 1 0.1 3 0.3 4 Actuality Introvation 0.10 1 0.1 3 0.3 4 Introvation 0.10 1 0.1 3 0.3 4 Optimization 0.10 1 0.1 3 0.3 4 Evaluation of measures undertaken during the last 3 years 0.10 1 0.1 3 0.3 4 Evaluation of measures undertaken during the last 3 years 1.00 1.1 0.1 1.2 1 production for 0.10 1 0.1 1 0.1 1 0.1 1 Improvement of soil conditions 0.10 1 0.1 1 0.1 1 1 1 1 1 1 1 1 1 1 1 0.1 1 0.1 1 0.1 1 0 1 0 <td>4.5</td> <td>Initiation</td> <td>0.10</td> <td>1</td> <td>0.1</td> <td>4</td> <td>0.4</td> <td>4</td> <td>0.4</td>	4.5	Initiation	0.10	1	0.1	4	0.4	4	0.4
Functionality	4.6	Decisiveness	0.10	1	0.1	3	0.3	4	0.4
Actuality O.10 1 0.1 3 0.3 4 Improvation Optimality 0.10 1 0.1 3 0.3 4 Optimality Evaluation of measures undertaken during the last 3 years 1.0 1.1 3 0.3 4 For protection for: 1.00 1.1 0.1 1.2 3 4 Improvement of soil conditions 0.10 1 0.1 1.1 0.1 1.2 Crop rotations 0.10 1 0.1 1 0.1 1 0.1 Crop rotations 0.10 1 0.1 1 0.1 1 0.1 Entilization 0.10 1 0.1 1 0.1 1 0.1 Diseases, pest and weeds control/ Prevention and medication 0.10 1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	4.7	Functionality	0.10	1	0.1	3	0.3	3	0.3
Definitive Definition Def	4.8	Actuality	0.10	1	0.1	3	0.3	4	0.4
Evaluation of measures undertaken during the last 3 years for protection of components of environment/ organic production for: 1.00 1.1 1.2 3 3 9 3 Constraints 4.1 1.2 3 3 4 4 4 4 4 4 4 5 6 6 7 1.1 1.2	4.9	Innovation	0.10	1	0.1	3	0.3	4	0.4
Evaluation of measures undertaken during the last 3 years for protection of components of environment/ organic production for: 1.00 1.1 1.2 production of components of environment/ organic production of components of environment/ organic productions 0.10 1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0	4.10	Optimality	0.10	1	0.1	3	0.3	3	0.3
for protection of components of environment/ organic production for: 1.00 1.1 1.2 Improvement of soil conditions 0.10 1 0.1 1 0.1 1 Crop rotations 0.10 1 0.1 1 0.1 1 Fertilization Fertilization 0.10 1 0.1 1 0.1 1 Soil cultivation Diseases, pest and weeds control/ Prevention and medication 0.10 1 0.1 1 0.1 1 Diseases, pest and weeds control/ Prevention and medication of animal diseases Mechanization and manpower 0.10 1 0.1 1 0.1 1 Mechanization and manpower 0.10 1 0.1 1 0.1 1 Protection of natural habitats 0.10 1 0.1 1 0.1 1 Choice of varieties and breeds 0.10 1 0.1 1 0.1 1 Choice of technology (incl. human attitude towards animals) 0.10 2 0.2 2 0.2 Doc		Evaluation of measures undertaken during the last 3 years							
Improvement of soil conditions 0.10 1 0.1 0.1 0.2 2 0.2	w	for protection of components of environment/ organic production for:	1.00		1:1		1.2		1.2
Crop rotations 0.10 1 0.1 1 0.1 1 Fertilization Soil cultivation 0.10 1 0.1 1 0.2 2 0.2 2 <td>5.1</td> <td>Improvement of soil conditions</td> <td>0.10</td> <td>1</td> <td>0.1</td> <td>_</td> <td>0.1</td> <td>_</td> <td>0.1</td>	5.1	Improvement of soil conditions	0.10	1	0.1	_	0.1	_	0.1
Fertilization 0.10 1 0.1 0.1 0.1 0.1	5.2	Crop rotations	0.10	1	0.1	-	0.1	1	0.1
Soil cultivation 0.10 1 0.1 1 0.1 1	5.3	Fertilization	0.10	1	0.1	1	0.1	1	0.1
Diseases, pest and weeds control/ Prevention and medication of animal diseases 0.10 1 0.1 1 0.1 1 1 1 Mechanization and manpower precision of natural habitats 0.10 1 0.1 1 0.0 0.2 2 0.2 2 0.2 2 0.2 2 0.2 2 0.2 2 0.2 2 0.2 2 0.2 2 0.2 2 0.2 2 0.2	5.4	Soil cultivation	0.10	1	0.1	1	0.1	1	0.1
of animal diseases Of anim		Diseases, pest and weeds control/ Prevention and medication	0.10	_	0.1	_	0.1	1	0.1
Mechanization and manpower 0.10 1 0.1 2 0.2 2 Protection of natural habitats 0.10 1 0.1 1 0.1 1 Choice of varieties and breeds 0.10 1 0.1 1 0.1 1 Choice of technology (incl. human attitude towards animals) 0.10 1 0.1 1 0.1 1 Documentation and accountancy Overall evaluation 5.00 9.1 13.15 2	5.5	of animal diseases	01.0		0.1	,	0.1		7.7
Protection of natural habitats 0.10 1 0.1 1 0.1 1	9.9	Mechanization and manpower	0.10	1	0.1	2	0.2	2	0.2
Choice of varieties and breeds 0.10 1 0.1 1 0.1 2 2	5.7	Protection of natural habitats	0.10	1	0.1	1	0.1	1	0.1
Choice of technology (incl. human attitude towards animals) 0.10 1 0.1 1 0.1 1 Documentation and accountancy Overall evaluation 5.00 9.1 13.15 2 0.2 2	5.8		0.10	1	0.1	1	0.1	1	0.1
Documentation and accountancy 0.10 2 0.2 2 0.2 2 Overall evaluation 5.00 9.1 13.15 2	5.9	\sim	0.10	1	0.1	1	0.1	1	0.1
5.00 9.1 13.15	5.10	Documentation and accountancy	0.10	2	0.2	2	0.2	2	0.2
		Overall evaluation	5.00		9.1		13.15		14.5

^{a)} Weight coefficient: Kk—for separate criteria, Kn—for indicators as the sum of Kk^{b)} Evaluations of the level of implementation for every one criteria Nk—from 1 to 5
^{c)} Calculated evaluations according to the formulas described in Material and methods: for the criteria Ek (1), for the indicators En (2), overall evaluation Et (3)

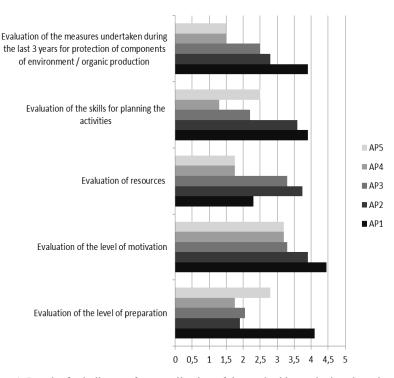


Figure 1. Results for indicators from application of the method by agricultural producers

Source: Author's own study.

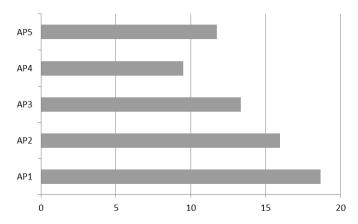


Figure 2. Overall evaluation of application of the method to agricultural producers

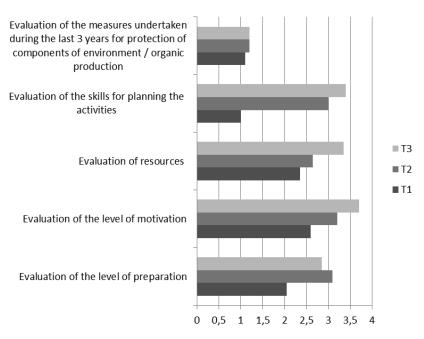


Figure 3. Results for indicators from application of the method by traders

Source: Author's own study.

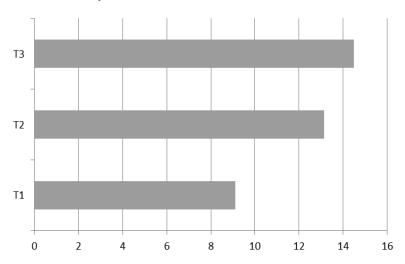


Figure 4. Overall evaluation of application of the method to traders

5. Discussion

Following filling in tables *Nk* for every one participant in this investigation, additional discussions were organized for reflections on results.

The APs accepted the final conclusions from the application of the method especially relating the proposed fields of improvements: for AP2—preparation, AP3—preparation and planning skills, AP4—preparation, resources, planning skills, AP5—resources. Retailers agreed with the comments, too.

Then the results were compared to the results of the application procedure in the State fund 'Agriculture' (for agricultural producers). Only the first one was approved with a business plan including conversion to organic production which is in line with the results from the conducted study.

During discussions with participants in this study the importance of the use of a right approach in conversion and careful thinking about how to do that were underlined. Based on this some steps for starting conversion to organic production or trade are proposed based on the main ideas in organic approach—planning, management, preventive measures and control of processes for achieving sustainable growth.

The most important steps in starting a business in organic sector determined in the investigation are the following (Figure 5):

- getting acquainted with organic principles and methods;
- getting acquainted with legislation in the field;
- answering the question 'Why to start a conversion and for which products?';
- making a decision what part of the farm/ processing/ trade activities will be the subject of conversion;
- what training and consultations do I need? Where can I find them?;
- making analyses of suppliers of stuffs and raw materials;
- making analyses of possible competitors;
- making analyses of available and necessary resources;
- studying ways of providing financing;
- providing manpower;
- studying opportunities for establishing partnerships in sales;
- risk assessment;
- planning the conversion and choosing a certification company;
- formulating a strategy, a plan, activities;
- starting the conversion;
- certification;
- trade mark

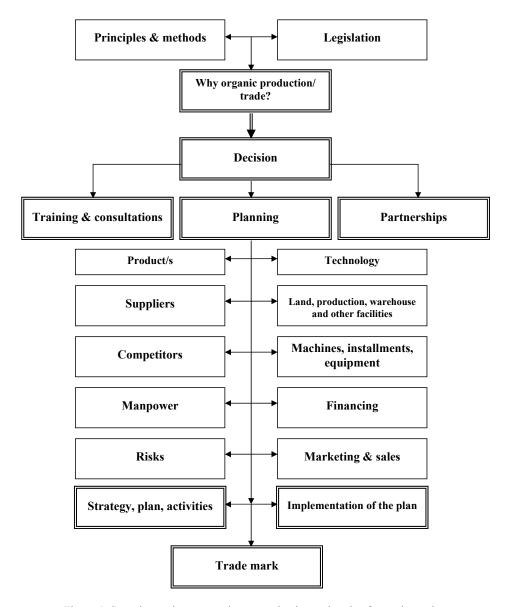


Figure 5. Steps in starting conversion to production and trade of organic products

Source: Author's own study.

A key moment is taking the decision in which several groups of factors should be recognized: social and economic—population increase and life quality improvement; economic development; consumers and habits/ preferences; technology progress; control—state policy, structure of economics, etc.; limiting factors—resources, finan-

cial opportunities, social infrastructure. The assessment of opportunities of new products, and on which decision is based, should include: evaluation of potential markets, evaluation of strengths and weak points of new product/s, of competitive advantage/s and consequences of introduction of new product/s, risk assessments, etc.

Main problems turn to the lack of or doing superficial analyses and ungrounded risk assessments. The lack of skills and wish to search for help and to conduct negotiations lead to negative effects, too. It is a mistake to pay attention to the planning only for the production part. The integral approach: market, innovations, production, price, organization, management and financial planning, is necessary for reaching success.

Creating a trade mark—a product of high quality and identity (for example logo, slogan, etc.), is a basis for achieving sustainable demand and positive financial results. For organic marketing and building trust in consumers this is a process of extreme importance. Acceptance of organic logo on European level is a part of the strategy for organic development.

Organic farm is a mark of quality—the final product is not the only one under control but the production process through common principles and rules which are applied by producers in the whole world. Control guarantees origin of the products. The significance of planning and management in organic production is underlined based on ecological systems with natural resources—an advantage is the use of inner resources over outer but flexibility is insured at the same time.

6. Conclusions

This study attempts to make a test of proposed method and the results show that it could be really used in practice. The method could be used by representatives of different groups in the supply chain as well as by consultants, trainers, researchers, etc.

The proposed method is a model for making analyses and prognoses for possible future development in the sector. It can be used by trainers, consultants, producers, processors, traders or others interested in the field for overall evaluation of readiness to convert to organic, as well as for evaluation of strengths and weak points and determination of fields needing improvements.

The main advantage in it is the differing approach based on significance of motivation and management in production/ trade. It also takes into account importance of innovation and entrepreneurship for increasing competitiveness as well as sustainability issues and future responsible, wise and environmentally friendly development.

The proposed steps in starting a conversion to organic production or trade consider decision taking as a key moment concerning a number of influencing factors and need of analyzing and planning, and keeping the creation of a trade mark as a main objective in it.

Bibliography

1. Arabska E. "Method of evaluation of the readiness for conversion to organic production or organic trade". *New Knowledge Journal of Science*, 2013, no. 1, pp. 229–236. Proceedings of UARD's Anniversary Scientific and Applied Conference, 18th October 2012.

- 2. Nikolova M. "Organic production in Bulgaria: An innovative solution for creating entrepreneurial initiatives in rural regions". In: *Development of agribusiness and rural regions in Bulgaria and EU perspectives 2020.* Varna 2012, pp. 231–241.
- 3. *Definition of organic agriculture* [online, accessed: 2013-10-15]. International Federation of Organic Agriculture Movements. Available online: http://www.ifoam.org/en/organic-landmarks/definition-organic-agriculture.
- 4. Argyropoulos Ch., Tsiafouli M., Sgardelic St., Pantis J. "Organic farming without organic Products". *Land Use Policy*, 2013, no. 32, pp. 324–328.
- 5. Karagulle A. "Green business for sustainable development and competitiveness: An overview of Turkish logistics industry (International Conference on Leadership, Technology and Innovation Management)". *Procedia Social and Behavioral Sciences*, 2012, no. 41, pp. 456–460.
- 6. Munguc B., Ozanne L. "Challenges of the 'green imperative': A natural resources-based approach to the environmental orientation-business performance relationship". *Journal of Business Research*, 2005, no. 58, pp. 430–438.

Zastosowanie nowej metody oceny gotowości producentów / handlowców do przejścia na produkcję / handel organiczny

S t r e s z c z e n i e: Niniejsza praca bada możliwości zastosowania nowej, opracowanej przez autorkę metody oceny gotowości producentów i handlowców do przejścia na produkcję lub handel organiczny. Metoda ta powstała w wyniku badań rozwoju sektora organicznego i oparta jest na ustaleniu najważniejszych wskaźników tego rozwoju. Bazuje na prostym systemie oceny i obliczeniach i okazuje się użyteczna jedynie jako badanie pilotażowe pięciu najważniejszych czynników określanych jako wskaźniki: przygotowania (pod względem wiedzy i umiejętności menadżerów / przedsiębiorców), motywacji, zasobów, umiejętności planowania działań (rozważanych osobno z powodu ich szczególnej wagi w podejściu "organicznym"), ochrony środowiska oraz ostatnio podjętych działań w dziedzinie produkcji organicznej.

Badania przedstawione w niniejszej pracy pozwalają zastosować w praktyce metodę opracowaną w teorii. Potwierdzają one ponadto zgodność tej metody i jej ewentualną użyteczność. Co więcej, zaproponowano kroki prowadzące do rozpoczęcia przejścia na produkcję / handel organiczny, gdzie zastosowano zupełnie inne podejście niż stosowane dotychczas (oparte na wyborze nowej technologii produkcji). Akcent położony tu został na zarządzanie, całościową kontrolę nad procesami i osiągnięcie zrównoważonego rozwoju.

Słowa kluczowe: produkcja organiczna, handel organiczny, przejście