AGRICULTURAL UNIVERSITY PLOVDIV
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MANAGEMENT AND DEVELOPMENT OF COMPETITIVENESS OF AGRICULTURAL ENTERPRISES IN NORTH MACEDONIA

(Управление и развитие на конкурентоспособността на аграрните предприятия в Република Северна Македония)

ABSTRACT

of a dissertation for the award of an educational and scientific degree
"Doctor" in a scientific specialty
"Organization and management of production"

Plovdiv, 2022

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Reviewers:

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The dissertation was discussed and focused on the defense of an extended meeting of the Department of Management and Marketing at the Faculty of Economics, Agricultural University of Plovdiv

The defense of the dissertation will take place on ..... 2022 from ..... hours in hall …… .. .

I. General characteristics of the dissertation

Relevance of the topic

Over the last 10 years, the Republic of Northern Macedonia has undergone a number of political and economic reforms aimed at improving the living standards of the population by creating conditions for economic growth and social prosperity. With the help of the World Bank, the agriculture of the Republic of Northern Macedonia is being modernized by making a number of infrastructure projects that provide access to the production resources needed for agricultural development. Today, the sector is developing in the context of the country's accession to the EU. About 30% of the country's population is employed in agriculture, and it generates about 20% of GDP. All these factors define agriculture as an important sector for the economic development of the Republic of Northern Macedonia. The economic development of the sector depends on the way the government intervenes and on the market conditions (of resources and goods and services for the end user) in which agricultural enterprises operate. In these conditions, the leading factor for the development of the sector is the way of managing both the sector and the enterprises operating in it. In the conditions of intensified market competition, the leading factor for achieving economic growth and employment is the maintenance of good competitiveness of local enterprises compared to all other market participants. By improving the management of the market presence, higher employment in the industry is achieved, higher productivity and innovations appear, on the basis of which the industry will develop in the future. All that has been said so far, determines

The competitiveness of an agricultural enterprise depends on a set of factors that directly or indirectly affect it. In the present study, the competitiveness of agricultural enterprises will be considered as a result, a function of the choice of organizational form for business development. All other things being equal, it will be analyzed how the choice of organizational form affects the competitiveness and on which main production factors it depends.

***Conceptual thesis of the dissertation*:**the competitiveness of agricultural enterprises depends on the type of organizational form chosen for the development of the business model.

The purpose of the dissertation: is to analyze and assess the factors determining the competitiveness of agricultural enterprises in the Republic of Northern Macedonia and to develop guidelines for improving their competitiveness in the internal market.

Tasks:

- To determine the economic nature of the agricultural enterprise as a production system and its constituent elements;
- To clarify the methodological approaches and methodological issues in the study and evaluation of the competitiveness of the agricultural enterprise;
- To study and analyze the state and trends in the development of the main factors determining the competitiveness of agricultural enterprises in the Republic of Northern Macedonia;
- Based on the analysis to develop guidelines for improving the competitiveness of agricultural enterprises in the Republic of Northern Macedonia.

Subject of research: is the market representation of agricultural enterprises in the Republic of Northern Macedonia.

Object of research: are agricultural enterprises in the Republic of Northern Macedonia.

Research approaches: the agricultural enterprise is perceived as a production system in the framework of the present study. Therefore, the systematic approach is defined as the main methodological approach in the research and analysis of the agricultural enterprise. Two other main approaches are used in assessing the competitiveness of an agricultural enterprise: The first approach is based on the Neoclassical theory of the enterprise. It considers the competitiveness of the agricultural enterprise as a result of the use of the main factors of production - land, labor, capital and entrepreneurship, without taking into account the imperfections of the institutional environment. It is assumed that the market is in equilibrium,

that the legislation is adequate and applied according to the rules, that the property is protected and has an economic realization, etc., which means that all transactions involving the exchange and use of factors of production are carried out without transaction costs. The second approach is based on Institutional Theory. This approach assesses the competitiveness of agricultural enterprises, taking into account the level of transaction costs in their organization and management. The approach is implemented in the following sequence: the main types of transactions in which the managers of agricultural enterprises participate are determined, and then the level of costs for these main types of transactions is determined. This approach assesses the competitiveness of agricultural enterprises, taking into account the level of transaction costs in their organization and management. The approach is implemented in the following sequence: the main types of transactions in which the managers of agricultural enterprises participate are determined, and then the level of costs for these main types of transactions is determined. This approach assesses the competitiveness of agricultural enterprises, taking into account the level of transaction costs in their organization and management. The approach is implemented in the following sequence: the main types of transactions in which the managers of agricultural enterprises participate are determined, and then the level of costs for these main types of transactions is determined.

Main literary and information sources

The dissertation is developed using: scientific publications and works of Bulgarian and foreign authors; newsletters of international organizations; reports and bulletins of the Ministry of Agriculture and Food; data from the National Statistical Institute, as well as a number of regulations.

Empirical information about the research is also provided by sample surveys conducted at the level of agricultural enterprises on the basis of questionnaires prepared by the author.

Volume and structure of the dissertation

The dissertation is presented in an introduction, three chapters and a conclusion, located on 125 pages, used literature and applications. The study is illustrated with 10 figures and 5 tables and 1 appendix. 142 literature sources are cited.

Content of the dissertation

II. Main content of the dissertation

INTRODUCTION

The introduction presents the state of agriculture in the Republic of Northern Macedonia in recent years, emphasizing the reasons for this state. The necessity of the research and its topicality are substantiated.

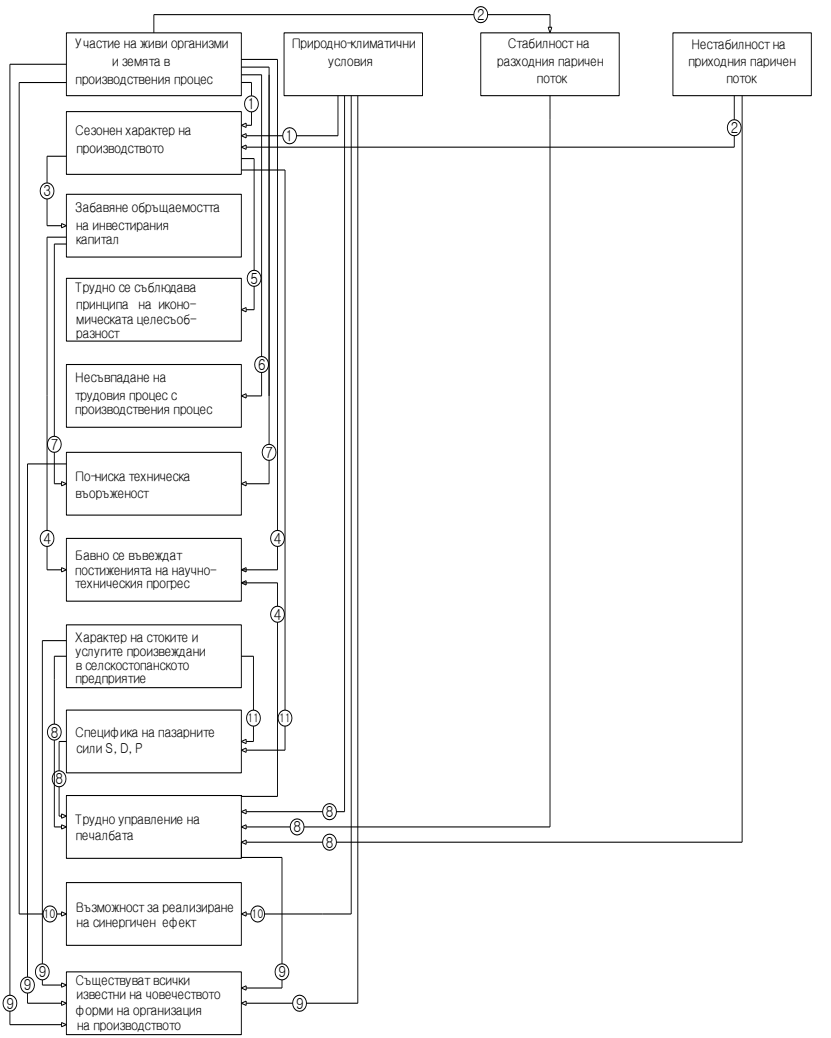
First chapter:NATURE OF THE AGRICULTURAL ENTERPRISE AND ITS COMPETITIVENESS

1. Nature of the agricultural enterprise

A review of the theoretical views on the nature of the enterprise and its features in agriculture. A critical analysis of the scientific discussion on this issue has been made. A systematic approach is used to substantiate the nature of the enterprise. It is considered as a whole consisting of production, economic, social and legal subsystems.

Figure 1.

Причинно-следствени връзки между факторите определящи спецификата на селскостопанското предприятие



The agricultural enterprise is a specific economic unit, important in the economy of each country, because it is the basis of economic activity of society and its development.

The factors determining the specifics of the agricultural enterprise are presented, which distinguish it from the enterprises in the other economic sectors (see Fig. 1).

2. Resistance of the agricultural enterprise to the influence of the environment

The complexity, uncertainty and mobility of the environment require the agricultural enterprise to have the following characteristics: sustainability, flexibility and adaptability. The environment creates conditions of uncertainty that threaten the sustainable state of the agricultural enterprise. It seeks to destroy the order and hierarchical subordination of the elements that make up the agricultural enterprise.

According to Pamukchiev M.[1]"This system is considered stable if the position of the exit remains unchanged or changes within strictly regulated limits, regardless of the interaction obtained at the entrance." According to Kanchev I.[2]"A sustainable state of the agricultural enterprise system is achieved when the substances and energy released at its output, together with those used in the production process, are greater than or equal to those obtained at the input." Closely related to the stability of a system is the concept of homeostasis. According to Pamukchiev M.[3]and Dimitrov D.[4]it reveals "the company's ability to adapt to changes in the environment." Homeostasis is the ability of the enterprise to get rid of the influence of the environment, to maintain its equilibrium state regardless of the impact of its entrance. According to the "equilibrium state of a system, it exists when it maintains its state invariably and the substances and energy entering it change." Therefore, the achievement of a sustainable state of the agricultural enterprise is carried out by preserving its homeostasis over time.

The agricultural enterprise is characterized as a highly dynamic system, ie. makes transitions from equilibrium to non-equilibrium, strongly influenced by the interaction with the environment The sustainability of the agricultural enterprise depends on many controllable and uncontrollable by management factors with single or complex influence on its condition. All this forms different stages (phases) in the development of the agricultural enterprise. According to Kanchev I. and Doichinova Yu.[5]"The period of time during which the agricultural enterprise maintains a dynamic balance between its constituent elements and the processes in it,

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[1]Pamukchiev, M. Introduction to economic cybernetics. Svishtov. 1978. p. 36.
[2]Kanchev, I. Doichinova, Y. Agrarian Management - Part I. Ed. UNWE Farm, Sofia. 1996. p. 34.
[3]Pamukchiev, M. Introduction to economic cybernetics. Svishtov. 1978. p.36.
[4]Dimitrov, D. General theory of management. Ed. UNWE, Sofia. 1991. p. 16.
[5]Kanchev, I. Doichinova, Y. Agrarian Management - Part I. Ed. UNWE Farm, Sofia. 1996. p.37.

ie. it is brought into a stable state, determines its life cycle. The life cycle of an agricultural enterprise is generally characterized by: the period of time during which it exists and functions as a separate production system; the dynamics of the main types of organizational changes carried out at each stage of its development; its degree of resilience to changes in the environment. "

Kanchev I., Doichinova Yu.[6]distinguish five phases in the life cycle of the agricultural enterprise: construction, expansion, differentiation, consolidation, liquidation or reorganization. There is a relationship between the phases of the life cycle of the agricultural enterprise and its degree of sustainability (see Fig. 3). During the construction phase, a combination of production factors, formation of the production and organizational-managerial structure of the enterprise is carried out. This phase is characterized by the poor functioning of some elements of the production system, which determines the great dependence of the agricultural enterprise on the influence of the environment. During the expansion phase, there are mainly technological and structural changes aimed at increasing the size and increasing the sustainability of the agricultural enterprise.

The phase of differentiation is associated with a certain calming of development as a permanent specialization and combination of industries has already been established, most suitable for the specific natural-climatic and market conditions and ensuring rational use of aggregate factors of production.

The consolidation phase is characterized by greater resilience despite the various structural, technological and behavioral changes in the agricultural enterprise, as well as a more moderate response to changing environmental conditions. The phase of liquidation or reorganization is related to the creation of a new dynamic unity of the elements of the agricultural enterprise system by regrouping or partial replacement of some of them. This phase creates the preconditions for the transition to a new life cycle, as it implies a transition to the construction of a new or renewed agricultural enterprise.

Summarizing the opinions of the authors, it can be concluded that achieving and maintaining the sustainability of the agricultural enterprise during the phases of its life cycle is inherently sustainable development.

[6]Ibid p. 38.

3. Competitiveness of the agricultural enterprise

A critical analysis of opinions on the nature of the competitiveness of the company. It is clear that the company must have the following characteristics in order to be well represented in the market: high productivity of resources; production of high quality products at minimal cost; increasing profitability; constant and / or growing market share; management efficiency; adaptability to changes in the environment; innovation.

The competitive advantage of the company means the potential of resources, knowledge, experience and motivation for their more efficient use compared to competitors in a given market situation.

The competitiveness of the company depends on the ability of its management to retain highly motivated staff working in it in order to create sustainable competitive advantages, ensuring optimal economic results in the long run.

3.1. Factors determining the competitiveness of sole proprietorships

According to Handler WC[7], Dyer WG[8] the single-family enterprise is "an organization in which the decisions of the owners and managers take into account the connections in the family". The reason for the emergence and spread of single-family enterprises is the need to seek the realization of the production factors owned by the family in order to obtain income necessary to meet their needs. The aim of the single-family enterprise is to maximize the income received from the activity, a source of satisfying the needs of the family members. The main competitive advantages of the single-family enterprise are: they are based on the property and work of the family. The family plays a central role in it, and it is the main cell in society in which the interests of the members coincide; An extremely important socio-economic characteristic of the single-family enterprise is that in it in one natural person the functions of three characters are combined - owner, entrepreneur and executor (worker). Thus a unity between ownership and management is achieved; Single-family businesses provide an opportunity to overlap the goals of the owner, entrepreneur and employee, which is vital for the motivational process. According to Lutsov I., Petkov

[7]Handler, WC Methodical Issues and considerations in studying business, Family Business Review 2-3, 1989 pp. 256-276.
[8]Dyer, WG Journal Cultural change in Family Firms, San Francisco, Jossey Bass Publishers 1986.

L.[9], Doichinova Yu.[10] this type of organizational forms predetermine a strong motivation for the entrepreneurial process and a strong motivation for work in the contractor. In the single-family enterprise there is freedom of entrepreneurial initiative, freedom in choosing goals and ways to achieve them, in providing the necessary resources, freedom in choosing to distribute the income from the activities of the enterprise; as the private producer is guided by personal economic interest, he shows high material interest, carefully manages production resources, shows economy in their spending, strives to minimize production costs, to achieve lower production costs and thus higher competitiveness; land ownership, property and other productive resources concentrates very strongly interests. Only the owner of the factors of production in production is most interested in using them to the fullest, because he does it for himself.

3.2. Factors determining the competitiveness of cooperative agricultural enterprises

According to Stankov V.[11] the cooperative as an agricultural enterprise is a system that is oriented towards obtaining income and profit from the production and sale of plant and animal products, from products of their processing or from services rendered.

In these organizational forms the goal is to achieve the goals through solidarity, cooperation, collectivity. The personal interest of the cooperating member gives way to self-help and mutual aid. The motivation for work of the members of the cooperative is determined in the better management of their property through joint work. Ivanov S.[12] defines the economic category of cooperation as "joint action or conduct of economic operators of cooperation aimed at achieving a common mutually beneficial goal." For the emergence of behavior of cooperation between different economic entities, it is necessary to have the same economic interests / goals /. History has shown that co-operation is a successful form of organization only if it is achieved with the voluntary consent of the co-operators. Raiffeisen F., who is the ideologue of the comprehensive rural

[9] Lutsov, I., Petkov, L. Private Agriculture and Cooperatives. Ed. Agriculture Foundation, Sofia. 1993 p. 4.
[10] Doichinova, Y. Economics and management of the family farm. Ed. Valdi, Sofia. 2003. p. 14.

[11] Stankov, V. Adaptation of cooperatives to modern conditions. Alad. ed. of AU, Plovdiv. 1999. p. 22.
[12] Ivanov, S. Cooperation and cooperatives in agribusiness. ed. PSSA, St. Zagora. 1997. p. 23.

cooperative movement in Germany, formulated the basic principle of the cooperative, namely free and equal access to it. According to Treneva M.[13]and Lutsov I.[14]The cooperative is built on the following principles: self-help - means that the members of the cooperative rely only on their own strength in achieving the goals, but always seeking mutual assistance. Cooperative relies on the principle: the individual cannot achieve as much as the team through teamwork. Self-help also means autonomy, striving for economic autonomy and independence; mutual aid - every individual in need of help, aware of their interests is a potential member of the cooperative; democracy: one member - one vote, regardless of the size of the property with which the cooperator participates in the cooperative. All participate in the decision-making process for the activities of the cooperative, ie. self-government is realized. Democracy: each member has the right to one vote regardless of the size of the property, with which he participates in the activities of the cooperative. This circumstance allows the small and landless members to have the opportunity to participate in the activities and management of the cooperative. Typical of these organizational forms is that the number of members is unlimited, anyone who wishes can participate in the cooperative; collectivity: in these organizational forms collectivism opposes individualism. The goals of individuals are subordinate to the goals of the team. Thus, the individual initiative flows into the joint efforts to achieve the common goal; freedom: the cooperative members themselves choose what activity to engage in; personality development. The specific relationship between the member - the cooperators who are the owners, managers and workers in the production cooperative determine the framework of the market representation of the cooperative. The production cooperative has the following sources of competitive advantages: the socialization of the production factors possessed by the members of the cooperative determines economies of scale, which are fairly distributed among them and increase their motivation to work; high degree of adaptability to changes in the environment, due to the possibility of diversification of production; creates an opportunity for introduction of innovative products in the production; creates conditions for increasing the specialization and qualification of the workers; creates conditions for increasing the

[13]Treneva, M. Theory of cooperation. Ed. Economy, Sofia. 1994. p. 126.
[14]Lutsov, I. Private Agriculture and Cooperatives. S., ed. Printing base, 1993.

concentration and intensification of production; assists in the development of the infrastructure of the settlement where it is located, etc. The production cooperative has the following sources of competitive advantages: the socialization of the production factors possessed by the members of the cooperative determines economies of scale, which are fairly distributed among them and increase their motivation to work; high degree of adaptability to changes in the environment, due to the possibility of diversification of production; creates an opportunity for introduction of innovative products in the production; creates conditions for increasing the specialization and qualification of the workers; creates conditions for increasing the concentration and intensification of production; assists in the development of the infrastructure of the settlement where it is located, etc. The production cooperative has the following sources of competitive advantages: the socialization of the production factors possessed by the members of the cooperative determines economies of scale, which are fairly distributed among them and increase their motivation to work; high degree of adaptability to changes in the environment, due to the possibility of diversification of production; creates an opportunity for introduction of innovative products in the production; creates conditions for increasing the specialization and qualification of the workers; creates conditions for increasing the concentration and intensification of production; assists in the development of the infrastructure of the settlement where it is located, etc. the socialization of the factors of production owned by the members of the cooperative determines economies of scale, which are fairly distributed among them and increase their motivation to work; high degree of adaptability to changes in the environment, due to the possibility of diversification of production; creates an opportunity for introduction of innovative products in the production; creates conditions for increasing the specialization and qualification of the workers; creates conditions for increasing the concentration and intensification of production; assists in the development of the infrastructure of the settlement where it is located, etc. the socialization of the factors of production owned by the members of the cooperative determines economies of scale, which are fairly distributed among them and increase their motivation to work; high degree of adaptability to changes in the environment, due to the possibility of diversification of production; creates an opportunity for introduction of innovative products in the production; creates conditions for increasing the specialization and qualification of the workers; creates conditions for

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3.3. Factors determining the competitiveness of agricultural enterprises - joint stock companies

In modern conditions in most of these organizational forms there is a division between ownership and management, ie. in these organizational forms the following characters are clearly distinguished - business owners, managers and workers who pursue their own goals.

The specific relationships between the three characters (owners, managers and employees) in joint stock companies, form the competitive advantages of these organizational forms but also place restrictions on their competitiveness. These organizational forms allow for the accumulation of significant financial capital through the issuance and sale of shares, which is a prerequisite for the construction of large-scale production facilities, enabling economies of scale. Large financial capital is used to build barriers to new competitors in the industry, thus maintaining and increasing market share; large financial capital allows to build price leadership and product differentiation of manufactured products; opportunity for higher incomes of workers, which, other things being equal, increases their motivation to work; the presence of a large number of shareholders (owners of the enterprise) contributes to the distribution of risk from the activities of the enterprise on a significant number of persons, which determines the choice of high-risk industries where profitability is higher; there is an opportunity to implement a system for total quality of production; the large capital of joint stock companies enables the

management to create competitive advantages by lobbying the state and other organizations. Despite the large number of advantages, joint stock companies have the following disadvantages: due to the high specialization, intensification and concentration of production due to the significant amount of financial capital, they do not have high adaptability to changes in the environment, as well as other organizational forms; their large size complicates their management. The high specialization and concentration of capital in these organizational forms limit the elasticity of production. As is well known, the greater the relative share of variable costs of total production costs, the higher the relative cost of variable production costs, and the higher the share of fixed costs, respectively. As the intensification of production in the enterprise increases, the ratio of variables to fixed costs shifts, as higher capital saturation is associated with a higher level of fixed costs, and narrower specialization - with a lower level of variable costs. costs.

3. Methodological issues of the study and evaluation of the competitiveness of agricultural enterprises

A critical review of the methodologies and methodologies on the problem has been performed. A specific methodology for analysis and assessment of the competitiveness of different types of vineyards has been developed.

The object of our study are agricultural enterprises in the Republic of Northern Macedonia. An agricultural enterprise is an enterprise whose main branch is agriculture, ie. this activity generates not less than 50% of the cash income during the business year. These agricultural enterprises must keep accounts according to the Law on Accounting of the Republic of Northern Macedonia and be registered in the register of the Ministry of Agriculture, Food, Forestry and Rural Development of the Republic.

The register of the Ministry of Agriculture, Food, Forestry and Rural Development of the Republic, in which all registered agricultural enterprises as of 31.12.2018 are entered, was used as a source for forming the sample. The resulting population consists of 32,810 agricultural enterprises. In the formation of the sample, the method of simple random sampling was used, as its constituent units were selected by irreversible selection. The sample size is 69 agricultural enterprises, which manage a total of 16,445 decares, which is 8.5% of the utilized agricultural area in the Republic of Northern Macedonia.

We assess the condition and characteristics of agricultural enterprises on the basis of the following indicators: size of arable land, number of transactions and investment activity.

The identification of market development factors is carried out using the SWOT-analysis method, implemented in 4 stages:

The first stage (A.) of the application of the methodological approach consists in the identification of the strengths / weaknesses as well as the opportunities and threats to the activity of agricultural enterprises. Focus groups of farmers discuss and identify strengths and weaknesses as well as opportunities and threats to agricultural enterprises. The choice of geographical areas and farmers owning small agricultural holdings is random. The register of agricultural producers was used as a source for sampling. Group discussions (focus groups) are used as a method in the research, which allows going deeper into the research topic, while using the advantages of the group effect. During the discussions, by spontaneously thoroughly discussing a predetermined range of issues in small groups of people, it is clearly formulated what are the strengths and weaknesses of agricultural enterprises and what opportunities and threats the external environment provides for their future development. The discussions are organized and directed by a moderator, who asks the questions for discussion, observes the equal participation of the persons, directs in new interesting directions, spontaneously expressed by the participants.

The second stage (B.) aims to construct a SWOT-matrix, which is the result of discussions in the four focus groups in the country. The most frequently mentioned strengths / weaknesses as well as opportunities and threats in the derived focus groups find a place in the matrix. This matrix is subsequently used as a technique to identify two very important elements in the strategic orientation of agricultural enterprises, namely: 1) what are the most important strengths, weaknesses, opportunities and threats and 2) what is the interaction of strengths and weaknesses countries with the indicated opportunities and threats.

The third stage (S.) looks for the most significant factors for the success of agricultural enterprises. The method of expert assessment ranks the most significant strengths, weaknesses, opportunities and threats in a SWOT-matrix. The role of experts in evaluating these four building blocks of the SWOT matrix is played by the farmers themselves. The peer review organized in this way aims to determine the most important factors for the

success of agricultural enterprises from the point of view of their owners. The organization of the expert assessment itself includes the following: instructing the experts (farmers) on how to express their expert opinion; selection and application of an assessment scale; developing a map of the expert opinion and performing the expert assessment by the respondents. Each expert fills in a specially created map of the expert opinion. The SWOT matrix constructed in the previous stage of the research is used as such. In this matrix, the respondent assesses the interaction of strengths and weaknesses with the identified opportunities and threats. The expert handles a 4-point rating scale, which contains the following assessments: 0 - no interaction, 1 - weak interaction, 2 - strong interaction and 3 - very strong interaction between the studied factors.

Four types of interactions between the factors in the matrix are studied as follows: (1) interaction between strengths and identified opportunities. This connection of research seeks to answer the question: to what extent these strengths can be used to realize the identified opportunities for development of agricultural enterprises; (2) the interaction between strengths and threats, so the assessment made seeks to answer the question: to what extent these strengths can be used to protect against the threats contained in the external environment; (3) interaction between weaknesses and identified opportunities, thus seeking an answer to the question: to what extent weaknesses can hinder the realization of identified opportunities and (4) interaction between weaknesses and identified threats.

In the fourth stage (D.) of the application of the SWOT analysis, the interaction of the factors in the SWOT matrix is determined. At this stage, the results of the expert evaluation are summarized. The individually completed SWOT-matrices of each respondent are aggregated into one summarized SWOT-matrix, which is a map of the summarized results of the expert assessment. The row "Sum" summarizes the individual estimates in the cells by columns of the matrix. This order identifies the most significant opportunities and threats to the future development of agricultural enterprises. The higher the amount for the opportunity or threat, the more significant it is, according to experts. In the column "Amount" are the individual estimates in the cells by rows in the matrix. This column identifies the most significant strengths and weaknesses, which can be used to establish the competitive advantages of agricultural agricultural enterprises. The higher the amount for the respective strengths

or weaknesses, the more significant it is, according to experts. The generalized matrix can be used as a tool for identifying the strategic orientation of agricultural agricultural enterprises in their future development. In other words, the compilation of this matrix achieves two useful effects - (1) determines the direction of future development of agricultural enterprises and (2) identifies a set of alternative strategies for the development of these production structures. The strategic orientation of agricultural enterprises is determined by the SOR-analysis method (abbreviation of three key success factors, which are: strengths, opportunities and obstacles to development □strenghts, opportunities and roadblocks). This is a method for defining a strategy for future development of agricultural agricultural enterprises, which is based on the principle - attack the most attractive opportunities with the most significant strengths of the organization, bypassing obstacles (Nikolov, Stanchev, Radev, Borisov, 2012). .

SECOND CHAPTER: ANALYSIS OF THE COMPETITIVENESS OF AGRICULTURAL ENTERPRISES

1. Profile of the surveyed agricultural enterprises

The identification of strengths / weaknesses, opportunities and threats to agricultural enterprises is carried out through four focus groups. The total number of participants in the focus groups is 69 people. Figure 1 shows the structure of agricultural enterprises according to the phase of the life cycle of development. The group of agricultural enterprises falling in the range of 1 to 5 years are more than half of the surveyed agricultural enterprises (52%). Next is the share of enterprises that have been operating for more than 5 years (29%). Those with the lowest share in the structure of agricultural enterprises are those who started their activity in the last 12 months (19%). The structure of the sample shows that the surveyed agricultural enterprises are for the most part still in the first phase of their existence,

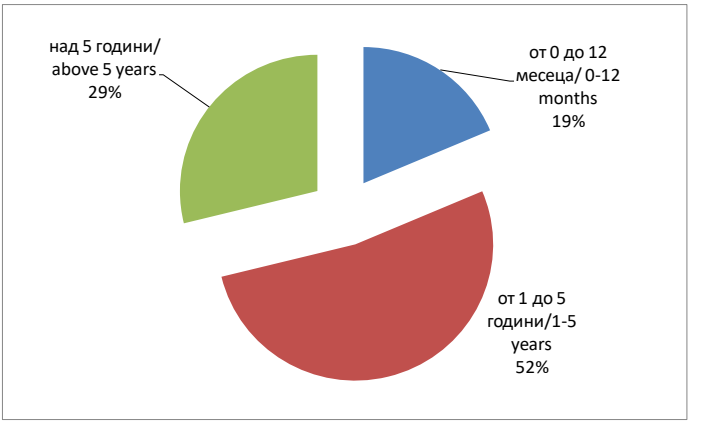

Figure 1. How many years has the enterprise existed. Source: Own study, 2019

The structure of agricultural enterprises according to their production specialization reveals that those who specialize in crop production predominate (57%). There are many representatives of the livestock industry (24%). Only 19% of focus group participants say that their agricultural enterprises are of a mixed type.

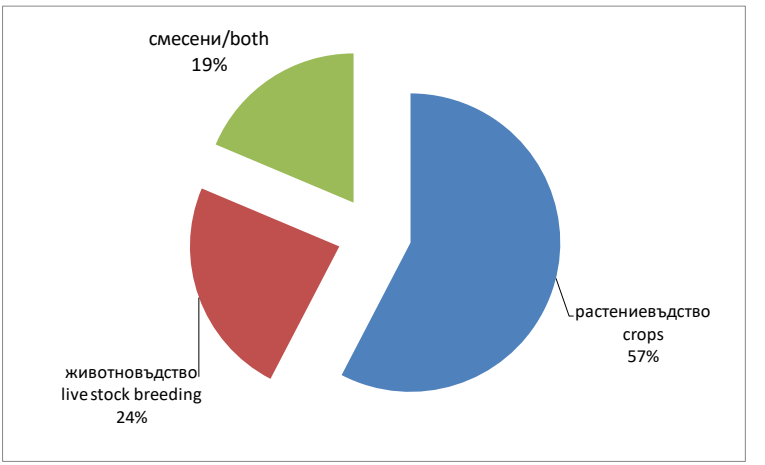

Figure 2. Production specialization of agricultural enterprises. Source: Own study, 2019

Figure 3 shows the structure of the participants in the focus group by their educational status. More than half of them declare that they have secondary education (68% of the total registered in focus groups).

Graduates occupy 29%. Only 3% of the participants have primary education. The structure of the focus groups presented in this way gives grounds for competence in compiling and performing the expert evaluation of the SWOT-matrix.

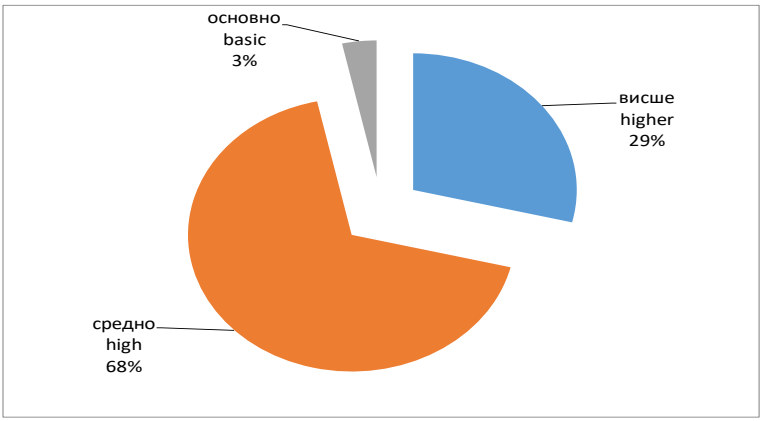

Figure 3. Education of agricultural enterprise owners. Source: Own study, 2019

Of interest to the study is to determine what is the desire of farmers to restructure their businesses. The more farmers are willing to restructure the activities of their agricultural enterprises, the more they will think about possible opportunities and threats. Figure 4 shows that 83% of farmers want to restructure their agricultural enterprises, and 17% do not, due to the established routine in the industry in which they operate.

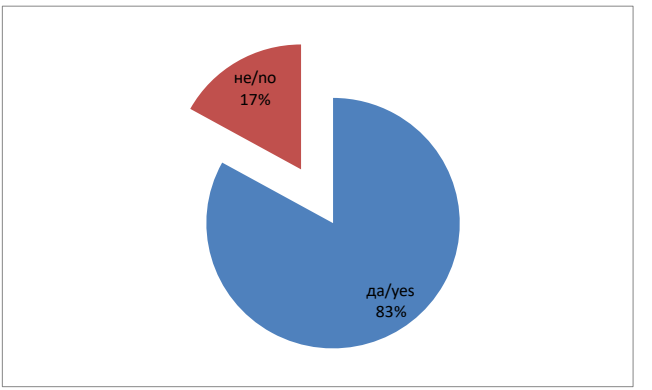

Figure 4. Desire to restructure agricultural enterprises. Source: Own study, 2019

2. Identify strengths / weaknesses, opportunities and threats

As a result of the derived focus groups, the strengths, weaknesses, opportunities and threats to agricultural enterprises are defined. Table 1 lists the identified factors of the SWOT analysis. Farmers identify a total of 12 strengths, 12 weaknesses, 9 opportunities and 12 threats to the development of agricultural enterprises. The numbering of the elements - strengths / weaknesses, opportunities / threats is in descending order, with the element that is most often mentioned in the discussions in the first place. Thus numbered elements by individual quadrants in the matrix show the main factors that need to be analyzed and evaluated in detail in order to determine what will be the future development of agricultural enterprises.

Strengths	**Opportunities**
S1Flexibility in managing the business **S2**High degree of control **S3**High motivation for the development of the farm / Motivation for the development of farm **S4**Used mainly manual labor **S5**Backbone of the rural economy **S6**Diversity in manufactured products **S7**Own funds in financing activities **S8**Perform social functions **S9**Clearly expressed individualism in entrepreneurial activity **S10**They apply production practices aimed at obtaining high-quality production. **S11**Production of quality products from the point of view of the end user / Quality production **S12**They restore the natural resources	**O1**Upward trend in food prices **O2**Governmental support **O3**Promoting local food brands **O4**Trend of increasing demand for organic products in the market **O5**Promote innovation and technology transfer **O6**Direct sales **O7**Support for cooperation initiatives **O8**Search for quality agricultural products / Demand for quality agricultural products **O9**Creation of local markets through the active participation of municipalities
Weaknesses	**Threats**
W1Weak market power **W2**High production costs **W3**Production of diverse types and quality of production in small volumes **W4**They have no desire for cooperation **W5**There is a lack of experience in applying for structural funds and inability to work with administrative documents / Lack of experience in management of administrative documents **W6**Low level of mechanization **W7**Insufficient security with qualified labor force / Lack of skilled labor force **W8**Low creditworthiness **W9**Lack of operative capital **W10**Lack of experience of risk management **W11**Low awareness of market trends **W12**Weak investment activity	**T1**Unstable market prices **T2**Competition from large agricultural enterprises in the country and the EU **T3**Increase in resource prices **T4**Normative restrictions and unstable legislation **T5**Loss of skilled labor due to migration and emigration processes, as well as as a consequence of the demographic collapse / Loss of skilled labor due to migration and immigration processes **T6**Global climate change. **T7**Strong market power of supermarkets and distributors **T8**Insufficiently developed elements of the system for trade in agricultural goods (lack of futures contracts, auctions, etc.) / Lack of future contracts **T9**Underdeveloped credit market for agriculture **T10**Delay in state payments **T11**Increase in administrative expenses **T12**Limited access to market information

3. Identification of critical factors and assessment of the interaction between them in the SWOT-matrix

After the construction of the SWOT-matrix, the analysis proceeds in the direction of identifying the most significant strengths / weaknesses, opportunities and threats for the development of small farms and assessing the interaction of factors in the matrix (these are shown in Fig. 1 stages C. and D.). For this purpose, the method of expert evaluation is used. In general, farmers have indicated that strengths outweigh weaknesses. This is shown by the strengths sector, which is higher (8212 points) than the weaknesses sector (8094 points) in the matrix. Therefore, according to the expert assessment, agricultural enterprises have the potential to adapt to changes in the business environment by relying on their strengths, which are more pronounced than weaknesses.

The results of the expert assessment also show that the most significant opportunities for agricultural enterprises are:

- The trend of increasing demand for organic products on the market (this opportunity has received the highest result in the generalized matrix;
- Promoting local food brands;
- The financial support of the state for the development of the sector;

The most significant threats that limit the development of agricultural enterprises are:

- Unstable market prices;
- The strong market power of distributors of agricultural products;
- The upward trend in the prices of production resources.

The development of agricultural enterprises and their establishment as a competitive structure is determined by the following strengths:

- The high motivation of the owner for the development of enterprises;
- The ability to easily adapt to market requirements due to the small volume of production;
- Production of quality products.

- The variety of products produced;

The most significant weaknesses of agricultural enterprises are:

- Poor awareness of market trends;
- Weak influence on the purchase price;
- High production costs;
- Lack of willingness to cooperate;
- Insufficient working capital.

The analysis of the SWOT-matrix by main quadrants shows that the quadrant "Attack" has the highest score, respectively, farmers rated it with 6059 points. This result can be interpreted as follows: agricultural owners identify strengths as the main source of competitive advantage for the future development of enterprises in the current business environment. The relationship between strengths and identified opportunities should be a priority in the future development of this type of economy.

4. Strategic orientation of agricultural enterprises

The strategic orientation of agricultural enterprises is based on the SOR-analysis method, which determines which of the most significant strengths will be used to realize the most attractive opportunities for agricultural holdings by removing obstacles to this. Within this method, the two most important opportunities provided by the business environment for development are accepted as a leading element of strategic planning, namely: expanding the demand for organic products (2371 points) and establishing local brands of agricultural products and food (1778 currents).). The upper part of the assessment pillars in the matrix, bearing the names of the respective two options, provides information that can be used to trace the interaction of strengths with these factors of the business environment. In the SWOT-matrix at the top of the ladder entitled "Trend of increasing demand for organic products worldwide" stand out three high-scoring cells (see Figure 6, cells with a yellow background), showing the interaction of strengths with the specific opportunity. Farmers are of the opinion that agricultural enterprises can develop in the future by relying on organic production of agricultural products. The arguments for this future development are the following: agricultural enterprises strive to adhere to good production practices (see box 205 points in the relevant pillar of the matrix), they are active in the conservation of natural resources (this is the second important strengths opportunity, respectively rated at 202 points) and have the ability due to their small size to easily adapt to

market trends (the relationship is rated at 201 points). The main obstacles to the realization of the identified opportunity can be identified by examining the lower part of the ladder, which gives the relationship a weak side opportunity. According to the expert opinion, the main obstacles to the establishment of organic production as a leading sector in small farms are: high production costs (180 points) and insufficient working capital available to these structures (169 points).

The second option - "Strengthening local brands of products and food" can be realized by using the following most significant strengths of small farms: the maintained variety of products produced in these structures (205 points) and high personal motivation for economic development 198 points). Obstacles to the realization of this opportunity are: the low degree of standardization of production (192 points) and the weak influence of the producer on the purchase price (189 points).

THIRD CHAPTER: NEEDS OF AGRICULTURAL ENTERPRISES FOR IMPROVING THE LEVEL OF COMPETITIVNESS

In the current conditions, agricultural enterprises in northern Macedonia identify the following obstacles to improving their competitiveness - organic access to certain production resources and high production costs; insufficient working capital; low mechanization of production; limited market access; competitive imports of agricultural products, as well as frequently changing regulations; the lack of sufficient experience in the management of projects financed under the individual measures of the World Bank.

The main limiting factor in increasing the size of the enterprise is the available agricultural land. Farmers point out that the prices of agricultural land have increased significantly and even with the help of individual measures that support them, they cannot afford to buy it.

There are also restrictions on access to quality RH sprays and fertilizers. Most farmers do not trust the quality of ferries and fertilizers offered by traders. The low efficiency of these preparations leads to their more frequent use, and this reflects on production costs. Traders are often cunning and refuse to issue invoices to farmers, who are then unable to declare these costs. Low levels of income, as well as achieving financial stability with exclusively own funds objectively limit the available

finances of agricultural enterprises needed for investment and structural development. The banking sector has high requirements for securing agricultural loans and thus limits farmers' access to credit. This is the main reason why small farms do not invest in the purchase of specialized equipment and attachments. Another critical factor for the successful development of small farms is access to the market for agricultural products. Farmers say that this market is extremely dominated by resellers, who set low levels of purchase prices in order to derive higher profits from the business. Another factor that determines lower purchase prices is competitive imports of agricultural products. which set low levels of purchase prices in order to be able to derive higher profits from the activity. Another factor that determines lower purchase prices is competitive imports of agricultural products. which set low levels of purchase prices in order to be able to derive higher profits from the activity. Another factor that determines lower purchase prices is competitive imports of agricultural products.

The needs of agricultural enterprises identified above require the following important decisions to be taken:

- effective state control over the activities of resource suppliers and traders of agricultural products;
- working state guarantees for granting credit for the needs of small agricultural enterprises, as well as the creation of conditions for the establishment of mutual credit, guarantee and insurance funds;
- state support in hiring additional labor on farms;
- more flexible regulations. In the case of beekeeping, the obligatory requirement for the agricultural producer to cultivate at least 10 decares of land should be abolished. To give the right only to the livestock farms to delineate the pastures in one land. Do not require a title deed to the farm building on livestock farms, as this restricts access to financial support as well as increases administrative costs;
- encouraging the construction of local agricultural markets, where only registered agricultural producers have the right to sell agricultural products;
- encouraging local processors to work with local raw materials;

- increase the capacity of local government structures advising on agriculture in order to meet the expectations of small businesses to provide more advisory assistance.

1. Needs for innovation

The main needs of small agricultural enterprises in the field of innovation are: the need for up-to-date market information; providing more access to new technologies and knowledge. Farmers are showing a keen interest in organic production. The transition from conventional to organic production by small farms is limited by the high cost of certification, the high prices of RH preparations and fertilizers that are allowed to be used in this type of production, and the low awareness of market trends. Another limiting factor is the lack of experience and knowledge in building organic production. Another need of small farms is to innovate in the protection of the farm during the season. Overcoming these obstacles requires the following steps:

- subsidizing the costs of certification of organic production in small enterprises;
- building a system for up-to-date market information;
- promoting technological transfer from research organizations to small agricultural enterprises through the structures of national universities;
- encouraging the creation of local structures between universities and farms for the creation and testing of new products and technologies;
- Promotion of organic production as a successful form of agricultural business;

2. Risk management needs

The main sources of risk for small businesses are natural disasters, volatile market prices, financial risk and theft of agricultural products. In general, farmers do not give priority to risk management in the management of the overall activity of the farm, but take into account its importance. The use of insurance companies in sharing these risks from agricultural activity is not a popular measure. The reasons for this are: the low trust of farmers in the activities of these organizations, the high insurance costs and the low interest of insurance organizations to impose

their insurance products in the agricultural sector. The following supporting actions need to be taken in risk management:

- higher levels of insurance premium subsidies;
- higher activity on the part of insurance organizations in sharing the risk in agricultural activity;
- to create mutual guarantee and insurance funds with the active participation of the state;
- promoting cooperation among farmers in the marketing of products;
- creation of joint structures among the local population for protection of farms.

3. Needs for marketing implementation

Small farms practically do not perform marketing functions. This feature is limited to finding effective ways to market products in the shortest possible time. The reason for this is the ignorance of the marketing approach as an effective approach to farm management, as well as the inability to make marketing expenses. The main obstacles in performing marketing functions are: complicating the management of the farm; the small volume of production, which does not imply marketing functions, but more commercial skills in the placement of products; the lack of actually functioning agricultural markets nearby; the presence of a gray sector; inability to standardize production.

The main measures that need to be taken to promote the marketing of small farms are:

- encouraging the building of marketing cooperatives;
- the creation of local agricultural markets;
- creation of standard contracts for the sale of agricultural products with mandatory elements such as delivery times, production quantities and purchase prices;
- introduction of quality standards for agricultural products;
- introduction of short food chains and vertical integration with processing companies.

3. Model of financial system for increasing the competitiveness of agricultural enterprises

Increasing the competitiveness of the agricultural sector requires creating conditions for the promotion and development of innovation activity of micro, small and medium-sized enterprises, allowing for preferential financing of this activity. Another important element is the promotion and development of a strategic approach to managing the competitiveness of agricultural enterprises. Combining these two principles in solving the problem is a leading factor in the presentation of the financial system in this part of the dissertation.

The description of the proposed model includes the identification of the main elements of this system, the interaction between them and the effects of this interaction. The aim of the financial system is to increase the financial competitiveness of micro and small enterprises in the sector by encouraging their innovation and providing conditions for imposing a strategic approach in the management of competitiveness.

The proposed financial system consists of 6 building blocks, the subordination of which is shown in Figure 5. The basic structure of the financial system is organized in solidarity, combining individual (enterprise) interest with common (all enterprises participating in the system) interest.

1.Mutual assistance financial fund. The main component (core) of the proposed financial system is the Mutual Fund. The main functions of the fund are to (1) promote the innovative activity of dairy enterprises by allocating financial resources for it at preferential levels and (2) to carry out strategic financial activities to increase the competitiveness of enterprises. The main sources of funds to replenish the FFV are:

- Preferential government securities;
- Share capital;
- Foreign investment;
- Deductions from the profit of the Insurance Fund;
- Deductions from the profit of the Innovation Extraordinary Fund;

The financial fund is managed by a financial council, which elects a chairman. The Financial Council (FS) is elected by the General Assembly. In the General Assembly, all milk processing enterprises that meet the criteria - 1) to be micro, small and medium enterprises and which 2) have met the criteria for joining the FFV. The Financial Board is

responsible for the strategic development of the fund by observing the mission of "Increasing the competitiveness of micro and small enterprises in the sector by encouraging their innovation and providing conditions for imposing a strategic approach in their financial management". The Financial Council is also responsible for strategic goal setting by defining strategic goals and types of development strategies. An Advisory Board is attached to the Financial Council,

The main financial outflows from the FFS are directed to the Innovation Venture Fund (IMF) and the Credit Cooperative (CC). These are structures that distribute financial resources among agricultural enterprises.

2. Innovation Extraordinary Fund.The main function of the IMF is to encourage and increase the innovation activity of agricultural enterprises. Through funding from the FFV, the fund provides targeted funding for innovative projects developed by agricultural enterprises. Financing is provided by enterprises in three ways:

(1) by mortgaging the assets of the enterprise;

(2) by providing deductions from the profits of the new product or service;

(3) by providing a share of the newly established innovative enterprise.

The Innovation Venture Fund is managed by a board of directors, which is appointed by the Chairman of the Financial Board of the FFV. The IMF is responsible for the evaluation and financing of new projects as well as for the control of their implementation. Venture funds are defined as financial structures that concentrate high levels of risk, therefore it is necessary to offer a risk management lever in the proposed financial system. The Insurance Guarantee Fund (IGF) is defined as such an instrument in the proposed system.

3. Credit cooperative. The main purpose of this element of the proposed financial system is to lend to agricultural enterprises on preferential terms. The credit cooperative observes the principle of the cooperative "one member - one vote, regardless of shareholding". The credit collateral on the part of the enterprises is guaranteed by a mortgage on assets. The bottom-up approach is needed when forming a credit union. The credit cooperative is managed by the Credit Council, which is elected by the General Assembly of the cooperative (the member dairy

companies). The Credit Council shall elect a chairman to implement the adopted decisions of the Board.

The main sources of replenishment of the financial capital of the cooperative, which will be distributed in the form of low-interest loans to agricultural enterprises are: (1) funds received from the FFV and (2) cooperative shares that enterprises deposit in the cooperative. Each enterprise has the right to receive dividends in the amount proportional to the cooperative share in the formation of profit from the activities of the credit union.

4. Insurance guarantee fund. The main function of this element of the proposed financial system is to manage the financial risk, which is concentrated in the various system elements. The existence of a venture capital fund as well as a credit union in the proposed financial system determines the need to establish such a fund. The PGF is managed by a manager, who is appointed by the FFV Chairman. The main sources for replenishing the fund are:

- the insurance fees paid by the enterprises that are members of the credit union;

- insurance fees paid by companies implementing projects, IMF financing.

A part of the accumulated financial capital (10%) in the FFV is used to form a Guarantee Fund. This fund is provided for use for the FGI, and it is used in the management of financial risk generated by the operation of the proposed financial system.

5. Advisory Board. (CS)This structure aims to gather information needed for the management of all units in the financial system as well as to monitor it. The Advisory Board is composed of experts who advise the chairman of the FFV, the credit council of the cooperative, the management board of the IMF and the manager of the PGF. The Advisory Board is organized on two levels - strategic and operational level. The strategic level is subordinated to the FFF chairman and has the main task of providing advice and tactics for the future development of the FFF. The operational level is independent of the elements in the financial system, and is only subordinated to the Strategic level. The purpose of the operational level is to provide information, advice, strategies, tactics in the service of the Strategic level as well as the individual funds in the system.

6. Agricultural enterprises. This is the last element of the proposed financial system. Enterprises are the main consumers of financial

resources they need for their innovation in the sector. The main financial flows that come out of the enterprises are the shareholder shares that they pay when forming the FFV, the cooperative shares when joining the credit cooperative as well as the insurance fees due to the PFA. The main benefits that companies receive in return are: low-interest loans (especially needed for the formation of working capital); dividends from the credit union; risk sharing in managing your innovation projects; information and prescriptions for increasing the financial capacity and innovation activity as well as the opportunity to make decisions at all levels in the management of the proposed financial system.

IV. Publications

2. Miladinoski, S., **D. Miladinoski** (2019). Security of freight forwarding opportunity for development of the Balkan economy. Savremeni trendovi u razvoju saobracaja I bezbednosti regiona Jugoistoc ne Evrope, Sonstantin Magnus, Naissus. Vol. 14, issue 1, 29-42
3. 2. Miladinoski, D. (2021). Upravljanem ekoloshkim rizicima u riziku I neizvesnisti. Bezdednost u posmodernom ambijentu. Vol.33, (1). 81 – 89. ISBN 978-86-85985-46-1
4. 3. Миладиноски, Д. (2021). Формирање на цена на нов производ. Modernizacija izmedju prosperiteta I destrukcije. vol. 35 (1). 353-362. ISBN 978-86-85985-48-5
5. 4. Миладиноски, Д. (2022). Банките како поттикнувачи на агро бизнисот. International journal of recent research in art and sciencies. Vol.14, (1), 547-563. ISSN 1857-8128
6. 5. Borisov, P., **D. Miladinoski** (2022). Competitiveness of agricultural enterprises – theories and determinants. Journal of Bio-based Marketing – vol.1/2022. 57-69. ISSN 2683-0825

IV. Scientific contributions

The following contribution moments of scientific and applied nature can be distinguished in the dissertation:

1. The nature of the agricultural enterprise and the management of its competitiveness are clarified;
2. A conceptual framework for assessing the competitiveness of agricultural enterprises has been developed;

3. Analyzed and assessed the competitiveness of enterprises in the sector;
4. The needs of agricultural enterprises for their better competitiveness have been identified;
5. A financial model has been proposed to improve the competitiveness of agricultural enterprises