

THE STATE OF MANAGEMENT DEVELOPMENT IN AGRICULTURAL ENTITIES

Zuzana Juričková¹, Zuzana Kapsdorferová², Mária Kadlečíková³

Slovak University of Agriculture in Nitra^{1,2,3}

Faculty of Economics and Management, Department of Management

Tr. A. Hlinku 2

Nitra, Slovak Republic

e-mail^{1,2,3}:zuzana.jurickova@uniag.sk, zuzana.kapsdorferova@uniag.sk, maria.kadlecikova@uniag.sk

Abstract

The objective of this article is to present development of agriculture in the time horizon which involves the years 2000-2016. The indicators that reflect the development and state in the sector are related to the share of agriculture on GDP, employment, development of the average wage in agriculture and number of business entities operating in this sector. The results are based on database of the Slovak Statistical Office and the Green Reports, of the Ministry of Agriculture and Rural Development of Slovak Republic. Furthermore, the objective is to indicate the trends of management in the selected group of agricultural entities in current, complicated economic and social situation. As a source of data were used the results of a questionnaire survey in agricultural holdings of Slovak Republic. The results confirm that although managerial approaches and methods are significantly changing under the influence of multiple socio-political and economic transformations, managers have to pay more attention to aspects of external environment and innovation, to continual improvement of activities and processes and also to consistent application of innovative approaches. The research shows that the application of new methods in management has a positive impact on the prosperity of farms.

Keywords: *agricultural entity, development, trend, manager, management functions, management tools, management methods*

JEL classification: *M1, O13, Q10*

1 Introduction

The management system in the agriculture is exceptionally complex process. Management represented by Slovak farms/companies in EU framework has to face to the following main contemporary challenges: food self-sufficiency and food security, climate changes, environmentally issues, healthy food and the equal opportunities for all farmers (prices, equal payments, subsidies). In these circumstances, the great responsibility is hold by agricultural managers, especially at the implementation of managerial decisions in the real time. The managers in the agricultural farms/companies are facing on the one hand to the information asymmetry, while on the second hand they paradoxically do have to their disposal the huge amount of information, which is exponentially growing. However, the decision making techniques are lagging behind of this growth. The position of the agricultural managers in this way is becoming more complicated.

The objective of this article is evaluation of the current status of management in the selected farms/companies operating in Slovak Republic. Furthermore, the objective is to indicate the new trends of management in the selected group of agricultural entities.

In economic theory, innovation was first defined by Schumpeter (1934) as any way of “doing things differently”. In this concept, Schumpeter included not only technological changes, but also improvement in infrastructures and markets, as well as organizational innovations. More recently, from a firm economic perspective, the Organization for Economic Cooperation and Development (OECD, 2005) and Eurostat (2005) also distinguished four broad types of innovations: on product, on process, on marketing method and on organization. The World Bank (2010) further explains this distinction defining innovation as “the dissemination of something new in a given context, not as something new in absolute terms“. Therefore “what is not disseminated and used is not an innovation”. Fresco (2016), in relation to agricultural innovation writes, that important innovations are expected in the field of genetics, ICT, bio - economics, or in optimization of the food chain. In this connection she suggests that future CAP has to resolve the agricultural restructuring, foremost in the livestock sector, which is recently moving towards of the farms with higher concentration. Except of this, the livestock production tends to move more to the Central and Eastern Europe, where are among the other advantages, also the fact that environmental cost is lower.

Kádárová a Durkáčová (2012), as well as Karabašová (2010), analysed the use of managerial tools in the process of the enterprise ‘performance growth. The conclusion is that on the highest positions of applied methods and tools are in domestic, as well as in global frame, the most important following factors: knowledge

management, strategic management, planning, alternatives, crisis management, formulation of missions and visions, orientation on key competencies, change management, CRM – relationships management with consumers' relations and others.

Recent preconditions on the market are highly competitive and permanently changing. This is causing the pressure on decision making process, management and changes implementation and on their utilization in favor of the business entities' growth. Kotter (2012) refers that we live in the period of more and more frequent changes. In the nearest years the speed of the changes will further to grow. New technologies will impact the all firms, even those which deal with traditional sectors, including of agriculture and food processing.

Stemming from the above mentioned authors and the outcomes of their research, in the submitted article we will deal with issues of innovation, new trends in management, organizational changes and status of management in the selected group of farms and agricultural companies.

2 Data and Methodology

In order to have the opportunity to compare conditions, levels and results of the farms/agricultural entities in different stages of their development, has been selected and processed quantitative data from years 2001 to 2016. These sources of quantitative data has been taken from the Green Reports in the years 2001-2016, also from the Information Letters of the Ministry of Agriculture and Rural Development of Slovak Republic for the same period, and also from various final reports of the Research Institute of Food and Agricultural Economics, as well as the statistical data published by the Statistical Office of Slovak Republic, had been used. With purpose to obtain primary information and qualitative data, had been realized a questionnaire survey.

In this connection have been addressed managers of the farms/agricultural companies. Questionnaires have been send in electronical form through the Google Forms and MS EXCEL 2016 program was used with table processor for primary data processing, their organization, adjustment and the graphical outputs and tables.

Hence, in Slovak Republic are existing diverse agricultural business entities in the sense of their size and legal forms, in the case of smaller entities up to 500 hectares, operated by one farmer or family is applied term - farm and for a larger business entity, the term – agricultural company.

3 Results

3.1 The Management Status in the Agricultural Entities of Slovak Republic

The aim of this part of scientific article is to evaluate development tendencies in production and economic activities, with purpose to identify the conditions under which the managers of agrarian sector have to perform their functions during the last 15 years. Except of this, will be portrayed basic characteristics of the surveyed group, furthermore, will be presented the results related to evaluation of recent status of management in farms/agricultural companies, as well as will be identified development trends in managerial competencies.

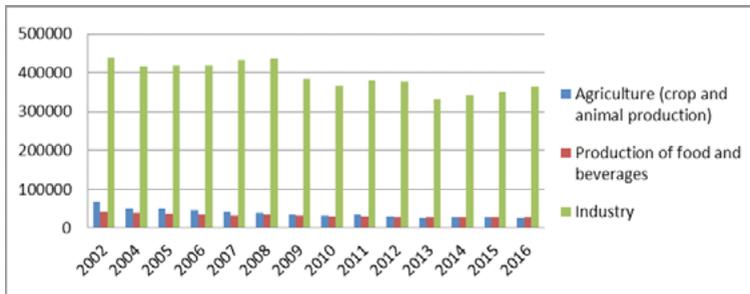
3.2 Production, Economic and Social Development Trends in Agricultural Sector from 2001 to 2016

Overall political, economic and social conditions under which agricultural managers are performing their missions and functions, underwent through significant changes. The major milestone and challenge for further economic and social development was accession of Slovak Republic (SR) to European Union (EU). This part deals with analysis of agricultural development starting with pre-accession period in 2001, continuing through development of the EU membership up to 2016.

The importance of agriculture within a national economy is usually measured by its share on the total GDP. At the beginning of the analyzed period (2001) this indicator achieved value 3, 69 %. In 2004 and 2005, as the first and second year of our EU membership, the share of agriculture on the created GDP had been increased up the level of 4, 70 %. In the next years this value started continuously decline. It is worthwhile to mention that, more as the EU accession for the significant decline of this indicator was responsible the period of global financial and economic crisis (2008- 2010). The share of GDP dropped on the level of 2, 50 %. To the end of the analyzed period, share of GDP started to slightly increase. However, it never reached its former level. In 2015 the share of this indicator achieved 2, 4 %, what in comparison with 2001 meant decline about 1, 29 %. In 2001 in agriculture have been employed 106, 4 thousands persons. In 2010, despite of the implemented number of measures in favor of employment support, the expected stabilization of agrarian employment has failed. The one of the reasons is also the low wage during the whole surveyed period, which was below the level of average wages in national economy. In 2016 this indicator reached 827 Eur in agricultural sector. Recently, the wages development in agriculture is positive,

despite of the persisting disparity. This is a main cause that the interest about the work and entrepreneurship in this sector is low. This issue was also reflected in the declining number of business entities operating in agriculture. In the years 2001-2016, the number of business entities in agricultural primary production declined about 1 140. The most meaningful dropping happened in years 2001 and 2002 (most likely the drought impacts). Furthermore, the continuous decline was caused the EU accession, despite the fact that this had no detrimental effects on production results in agriculture. The most negative impact on the number of companies' bankruptcy had the financial and economic crises and this trend is continuing, virtually up to date. In 2014 the long-lasting continuous decline of employees working in agriculture had been stopped. This was result of diversification, production of higher value-added products and by growing incomes from non-agricultural activities, especially, from rural tourism, which meaningfully influenced the generation of new job opportunities. In general, we can state that number of employees in agriculture between years 2001 till 2016 declined on the level of 53, 9 thousands people (Figure 1).

Figure 1 The Development of Employees Number in Agriculture in Selected Sectors with Organizations having 20 and more Employees in Years 2001-2016



Source: Information Letters, Ministry of Agriculture and Rural Development 2001-2016; own elaboration.

This resulted into the introduction of new forms of employment, based on flexible approach. Flexibility in employment of working forces stems from seasonal nature of agricultural production, from its structure, as well as from ways for employees 'separation. In any case, this fact increases the requirements on organizational abilities and managerial competencies of agribusinessmen.

3.3 The Description of Selected Group of Farms and Agricultural Companies Involved into the Survey

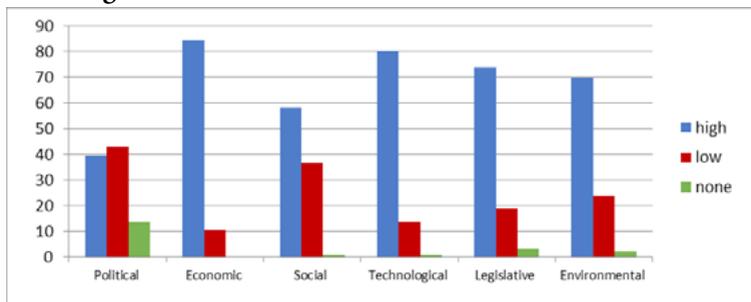
26, 04 companies involved into the survey have been established more as ten years ago. 34, 38 % companies have been created more as twenty years ago, and 36, 46 % are operating in sector more than 30 years. From the obtained data is stemming out that number of newly formatted companies (they operate in sector less as 10 years), is low, only 3, 13 %. It is obvious that despite of transition process, EU accession had no detrimental effect on the companies which had been established prior the political and social changes before 1989. In our surveyed group the dominating share is represented by the farms which were established during the transition process. Those companies which had been created after EU accession, respectively they are still formed, are representing the modest share in the surveyed group.

The questionnaire survey was fulfilled by 96 top managers of agricultural entities. With regard of accomplished level of education, the university degree education has even 80, 2 % managers (77). 3, 1 % managers (3) have a PhD degree. 12, 5 % of them (12) managed to have secondary education, and only 4, 2 % (4) accomplished apprentice schools. This optimistic result is documenting good preparedness of managers for successful accomplishment of their functions, in the recent very demanding permanently changing circumstances. Six respondents with secondary or apprenticeships operate their businesses on small agricultural holdings.

Into the questionnaire survey have been included only 9, 7 % women, who are, managers, or owners of the surveyed farm/companies. This result can express in the one side the unequal opportunities at the selection of women into the managerial positions, or on the second side, eventual lower women's interest about the work in this sector caused by its nature and challenges.

3.4 The Status and New Trends in Management in Farms/ Agricultural Companies

The external environment in which is placed the firm is composed from two spheres (Slávik, 2013). The higher sphere is assigned the macro-economic surrounding composed from political, economic, social, legislative and technological environment. The lower sphere is called the sectorial surrounding which is containing from the factors which in direct way are affecting the position of the farm/agricultural companies.

Figure 2 **The Significance of the Selected Factors in External Environment**

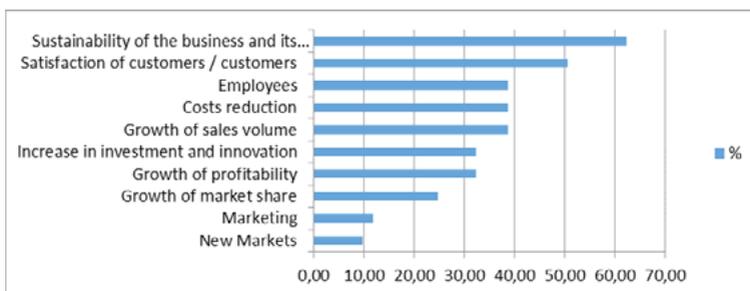
Source: Own elaboration.

The managers of the analyzed farms/companies consider as the most important in their external environment both economic and technological changes. In the second group are listed the legislative and ecological changes. The changes in the third group, both social and political, have the lowest impact on analyzed group, however, the average values are still high, even in comparison with first group of factors (Figure 2). It is reasonable to claim, that all the changes in the external environment of farms/agricultural companies analyzed according of six factors in the case of change, have a strong significant impact on agribusinessmen's performance. The decision making process and managers' performance are affected by the changes and instability of the environment, but also by their personal competencies how to resolve in successful manner the subjects of the decision making process. Among the factors which represent for managers the biggest obstacles for their business development, from the external environment's point of view are important following: the state bureaucracy (68,4 %), insufficiently prepared strategy for sector development (57,9 %) and in its synthesizes part is limited attention dedicated to the concrete steps in favor of its fulfilment. Almost half of the respondents consider as very unfair the share of the primary producers on the profit in comparison with other participants involved into the same food chain. The significant obstacle is frequent turbulent changes in the business environment (legislation, energy prices-green petrol, administrative conditions for business etc.). 31, 6 % managers are complaining on the missing coordination at the sale's activities through which would be possible to negotiate better price conditions. As a similar problem are considered frequent changes of the political elites both within a sector and government (31, 6 %). Less essential factors which have the impact on the farm/agricultural companies' lower performance are as follows: fear from the risk, unreliability of inputs suppliers, and underestimation of other competitors. Limited communication from the side of

partnering institutions, or lack of employees interest, as well as the absence of marketing management, these all represent the obstacles on the farms/agricultural companies' development. Very important factor for the development of agricultural company or farm, are well-functioning institutional sector's capacities. In the undertaken survey was therefore attention concentrated on the question that which sector institutions are considered by the agribusinessmen from the success point of view, as the most important. The achieved results unanimously are in favor of the Agricultural Paying Agency (81, 3 %), as well as Ministry of Agriculture and Rural Development (75, 8 %). Almost same results have been noted in connection to Slovak Food and Agricultural Chamber (74, 7 %). Approximately on the same level, have been evaluated the second group of institutions, among which are mentioned banks (37, 4 %), commodity and farm animals production' associations (36, 3 %), universities and research institutions (31, 9 %), Agrarian Chamber (30, 8 %), Agroinstitut which deals with long-life education in sector (27, 5 %), then Cooperatives and Trade Unions (20,9 %), as well as the insurance companies.

Upon the achieved results as the long-priorities of managers in farms/agricultural companies are considered the consistent profit growth (32, 26 %) and the higher investment with same deal. These two priorities are followed by the steadily growing market share (24, 73 %), marketing (11, 83 %) and new markets (9, 68 %) (Figure 3). It is obvious that last three listed priorities have been evaluated less eagerly in comparison with first two priorities. This approach is most likely the result of the fact that management in the farms/agricultural companies is not directly ensuring emplacement of their products on the markets. This part of responsibility in frame of food value chain is taken over by sales managers of other sale companies, eventually by the managers of the food processing companies.

Figure 3 **The Long-Term Priorities of Managers in Selected Group**



Source: Own results.

In more definitions of management as e.g. Bělohávek et al. (2007) this human activity is defined as the process of systematic planning, organizing, leadership and control, which tends to the fulfilment of organizational objectives. The above mentioned activities in the definition do represent the management functions. The individual functions could be preferred by respective managers according of their capabilities and preferences, or according of the new trends in management, which are placing higher attention to the one or another managerial function. (Chart 1).

Chart 1 The Importance of Managerial Functions According of the Managers in Selected Group

Importance in% Management functions	high	low	none
Planning	83,2	16,8	0
Decision making	94,7	5,3	0
Organization	95,8	3,1	1,1
Leading of people	89,5	9,4	1,1
Motivation	85,3	12,6	2,1
Governance	84	14,9	1,1

Source: Own results.

In frame of carried out survey we followed that what importance is allocated by individual managers in order to be successful in business. To the above mentioned basic management functions were in addition added motivation and negotiations with external partners. In connection to the information boom, sometimes connected with information asymmetry, the great importance is assigned to the decision-making process. In the same time we can consider this function as the positive development trend, due to that through decision-making process could be in successful manner implemented business and personal capabilities of personal assumptions and business intensions of every managers. The dynamic approach to his own/ her own profession are expressing also importance assigned to organization function. Permanently changing prerequisites, volatile price development, climate changes, new programming periods for absorption of EU funds, including of adjusted and changing conditions of CAP (Common Agricultural Policy), these all require from managers both smaller and larger agricultural entities, that they will be excellent organizers and be able to adjust themselves to the volatility of political and social, business and environmental development.

Leadership was indicated in the respondent's ranking, as the second most important managerial function. The leadership problem in agricultural business entity is recently more complicated from two reasons. First of all, that gradually less and less people have interest about the work in this sector, and secondly due to the production seasonality. In this way, there is the trend to prefer manually working staff's employment only on the certain, usually shorter period. Furthermore, due to the lack of working forces, more frequently are employed less qualified people. The last listed problem with growing work productivity in agriculture will become irrelevant. Digitalization and mass data, information as well as communication technologies will make possible to create a new production systems operating on the land and in the stables. For this new, revolutionary development system, have to be also prepared human resources at all managerial levels.

The last group is formed by activities, as do represent external partners and such managerial functions as planning, motivation and control. This result is to certain degree surprising. We have to be aware that into the research have been included 43 % business entities with size up to 500 hectares. So from Slovak point of view these farms/agricultural companies were smaller. In this case the planning is playing less important role, despite that has its sense, but not necessarily the plans are expressed in written form and they are usually drafted in less detailed manner.

In relation to the control the answers of top managers place this activity into the third group. Top managers from the all managerial levels should have the lowest deal on the control functions. In contrary, from top to down the share of control in the work of managers is increasing and in certain cases can reach even 35 - 40 % from their overall working time. (Bělohávek a kol. 2007)

In line with earlier mentioned statement, the planning has most essential role in the work of top managers. In the carried out survey, the intention was to find the answer on the question that what kind of meaning is management assigning to the planning with special orientation on individual types of plans.

Taking into consideration, that answers have been provided by top managers, it is reasonable to assume that the largest meaning will be assigned to the strategic plans and to the visions, as well as to the mid-term plans, and vice versa, and that the lowest regard will be paid to the short-term plans. The contrary is true. Results are enough surprising, however, in line with what is typical for smaller farms and agricultural companies in last years at the last two decades. This is the result of inconsistent policies and numerous turbulences in sector. Agricultural businessmen, therefor prefer to plan their managerial works in shorter perspective, as they have to react on the challenges of given concrete and insisting situation.

4 Discussion and Conclusion

According to Kenichi Ohmae (2005), the new economy is calling for specific knowledge and its application in the working processes. Knowledge management is focused also on the new trends of global entrepreneurship which are represented by associations and clusters. Their importance is also highlighted by Bureš (2007), Jemala (2009), Hess (2011). The problem of creation of inputs-supply associations is connected with transition period, which completely disturbed the previous relations. The membership in various associations is recently applied almost in half surveyed farms/agricultural companies. However, in comparison with results of the other studies, the results achieved by us, are more optimistic. According to Sedik (2016), this indicator has value of 3 % in Hungary, in Ukraine 0, 4 %. In contrary, in Italy its level results into 54 %, in USA and in France this indicator achieves 100 %. Challenges, connected to the business, are requiring from managers permanent attention devoted both to the farm/company's external, as well as to the internal environment Slávik (2009). According to our results, the most important changes in the external environment mainly relate to all economic and technological changes.

Upon the results of undertaken survey, we can state that decision-making process managers consider as the most important function in the recent circumstances. This is the positive development trend, because through decision-making is opportune to implement tasks and to fulfil the farm/agricultural company's objectives. The leadership is considered as important function due to the low attractiveness of the sector and demanding working conditions. The result linked to the control is in line with statement of Bělohlávek et al. (2007) that line managers on the lower management levels should have from their working time the highest share on the control. In majority of the cases this is around 35-40 %.

With regard of strategic management, this managerial tool is missing in the work of agricultural managers. In line with results of Filo (2013), in this research was also confirmed that strategic management does not belong among the priority tools of managers in farms/agricultural companies.

Diversification can help to agribusiness to enhance its competitiveness and to obtain additional financial sources for innovation and further development (Tothová, Fiľa, 2014). According to our results, diversification is the activity implied almost in every farm/agricultural company. 92, 71 % of analyzed entities consider diversification as very important for sustainability of production, economic and social functions.

Another new trend is connected to organizational and management structures in farms/agricultural companies. The organizational structures are more

simple in favor of functional or product structures. In larger companies are implied divisional structures.

The results achieved in our research compared with analogical research activities of the other authors, document that development trends, so in management of agricultural entities and in the other sectors of the national economy are analogical, despite of their specific features and differences. In any case the development trends in agriculture with its dynamic nature are lagging behind of industrial and service sectors.

The most significant impact on the new trends in management had the EU accession. In number of the farms/agricultural companies was indispensable to commence with various rationalization measures. From the obtained answers is clear that at least half of the business entities is implementing different measures, especially in field of management of human resources, in organizational structures, which became more lean and simple, in investments into new technologies and techniques, in the utilized production procedures and structures, also have been introduced different diversification programs, the farms/agricultural companies entered into various associations and clusters. Agribusiness entities undertook number of measures focused on the energy savings. The results confirm the certain problems in management, respectively, in the managers' competencies in which is missing ability actively utilize marketing management. The before mentioned is confirming, that accession to the EU meant huge requirements, however competitiveness according of managers' expressions, it is the contribution and in the same time challenge of the higher demand at the achievement of higher competitiveness.

Acknowledgement

This article was created within the Vega project: Social Responsibility and Innovation Activities at Declining the Food Losses with focus on the Friendly Use of Environment. Project Registration Number: 1/0802/18, 2018-2020.

References

1. BĚLOHLÁVEK a kol. 2006. Management. Computer Press, 2006. 736 p. ISBN 80-251-0396-x
2. BUREŠ, V. 2007. *Znalostný management a proces jeho zavádění pro praxi*. 1. vyd. Praha: Grada, 2007. 212 p. ISBN 978-80-247-1978-8
3. FAO. 2011b. *The State of the World's Land and Water Resources for Food and Agriculture. Managing systems at risk*. Rome. Available at: <http://www.fao.org/docrep/017/i1688e/i1688e.pdf>.

4. FAO. 2012. *World agriculture towards 20130/20150: the 2012 revision*, by N. Alexandratos & J. Bruinsma. ESA Working Paper No. 12-03. Available at: <http://www.fao.org/economic/esa/esag/en/>.
5. FAO. 2017. *The future of food and agriculture. Trends and challenges*. Rome. Available at: <http://www.fao.org/3/a-i6583e.pdf>.
6. FILO, M. (2013). Hodnotenie strategického riadenia vo vybranom súbore agropodnikov na Slovensku. 184 p. Doktorandská dizertačná práca.
7. FRESCO, L. O. 2015. *The new green revolution: bridging the gap between science and society*. Current Science. Available at: <http://www.currentscience.ac.in/Volumes/109/03/0430.pdf>.
8. HES, A. a kol. (2011). Nové trendy v marketingu. Zvyšovanie konkurencieschopnosti Slovenska, regiónov a firiem. Regionálny klastor ako nástroj podpory konkurencieschopnosti. In: *Zborník z medzinárodnej vedeckej konferencie*. Nové trendy v marketingovej komunikácii. Trnava: Univerzita sv. Cyrila a Metoda, 15.-16.novembra, 2011. ISBN 978-80-8105-335-1
9. JEMALA, M. (2009). Strategické podnikateľské aliancie: Kvalitatívna analýza špecifických faktorov podnikania v klastroch. In *Acta Oeconomica Pragensia*, 2009, vol. 19, no. 4, . 19-32. ISSN 0572-3043.
10. KÁDÁROVÁ, J., DURKÁČOVÁ, M. (2012). Analýza využívania manažérskych nástrojov aplikovaných v procese zvyšovania výkonnosti podnikov. In: *Transfer inovácií 24/2012*. Available at: www.sjf.tuke.sk/transferinovacii/pages/archiv/transfer/24.../24_2012.htm
11. KARABAŠOVÁ, L. (2010). Metodický postup pre aplikáciu Balanced Scorecard do organizácie. Available at: www.dominanta.sk/MetodikaBSC.pdf.
12. KOTTER, J .P. (2012). *Leading Change*. In: Harvard Business Review Press, 2012. ISBN 978-0-87584-747-4.
13. MPRV SR. Správy o poľnohospodárstve a potravinárstve v SR, roky 2001-2017. Available at: <http://www.mpsr.sk/index.php?navID=122>.
14. OECD. (2001). *Innovative Networks: Co-operation in National Innovation Systems*, OECD, Paris.
15. OHMAE, K. (1991). *The mind of strategist. The art of Japanese business*. United States: McGraw-Hill Education Europe , 1991. 304 p. ISBN 978-00-7047904-3
16. SEDIK, D. (2016). *Agricultural Cooperatives in the Value Chain in Eurasia*. MVD 2016. Nitra: SPU
17. SCHUMPETER, J. A. (1934). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle*. Harvard University Press, Cambridge, MA.

18. SLÁVIK, Š. (2013). *Strategický manažment*. Sprint dva, 2013. 390 p. ISBN 978-80-893-9396-1
19. ŠAJBIDOROVÁ, M., LUŠŇÁKOVÁ, Z., DOBIŠOVÁ, M. (2016). Management of human resources in agricultural sector enterprises. In: The agri-food value chain: challenges for natural resources management and society: International scientific days 2016, May 19-20, 2016, Nitra, Slovak Republic, conference proceedings. Nitra : Slovak University of Agriculture. 2016, p. 224-228. Available at: URL: <http://dx.doi.org/10.15414/isd2016.s3.08>.
20. TÓTHOVÁ, V., FÍLA, M. 2014. Hodnotenie diverzifikácie poľnohospodárskych subjektov v kontexte rozsahu obhospodarovanej pôdy. In: *Ekonomika poľnohospodárstva* vol.14, no. 3, p. 69-81.
21. World Bank. 2010. *Innovation policy: a guide for developing countries*. Washington, DC. Available at: <https://openknowledge.worldbank.org/handle/10986/2460>.