



Standars Role in Agribusiness for Better Future

Prof. Dr. Nada Živanović

Faculty of Business Industrial
Management University, Union-Nikola
Tesla., Belgrade, Serbia
Email: profesorkanada@yahoo.com

Mr. Slavko Ivković

Assistant to Faculty of Business Industrial
Management University, Union,
Belgrade, Serbia
Email: ivkovic022@gmail.com

Master Vlada Živanović

State Audit Office, Assistant to Faculty
of Business Industrial Management
University, Union, Belgrade, Serbia
Email: vladazivanovic1981@yahoo.com

Abstract – Management development and application of quality standards in agribusiness is the foundation of good decisions for successful business in the future.

The main point is that top management implements quality standards and other regulations of the European Union. It is not enough just to be emphasized on the implementation and development of the only standards ISO 9000, ISO 14 000, but also the development of integrated standards such as HACCP and others.

The paper will be presented the characteristics of the agribusiness on the basis of directives, regulations, principles, commitments standards prescribed by the HACCP (Hazard Analysis and Critical Control Points) - Hazard Analysis and Critical Control Points.

Keywords – Agribusiness, HACCP Standards, Strategic Development, Better Future.

I. INTRODUCTION

The strategy of our agrochemicals business is affected by the crisis for a number of years and this situation rip this area today. Bearing in mind the fact that in the world of agriculture is classified as a systemic whole overall economy of a country. In this sense it can be said that the agricultural industry is incorporated into other economic activities, and that it is global, properly. Intensive industrial which was defined our country in the past and the period is mainly tied primarily agrarian area. The aim was aimed at increasing the consumption of the population, increasing quality of life and standard of living. To strategic goal of accelerated economic development to comply with any need that agriculture as an important driving force of a country constantly improving and evolving to a much greater extent than it seemed.

It is necessary to establish good economic relations between agriculture and industry raw materials. Rural areas are increasingly getting older and are gradually dying, while social estates gave enough good results of which are much more expected to develop faster.

Globally, primary agricultural production is a strategy that needs to be developed as a whole, and that in hilly and mountainous areas of animal production represented.

So it is important to first plan is the representation of the production of cereals, industrial crops, fruits, vineyards and others.

Number of employed population is declining both in the individual and in the social sector. Therefore, an increase in industrial production is possible, increasing use of capacity, greater liquidity of the economy reducing all types of costs, financial discipline as the basis for the decline in prices and an increase in real purchasing power of the population.

A quality management plan adopted in order to fulfill the mission will change the current state of affairs, as this structure is known in the organization, knows where it starts. The problem is that each bring a plan, when and as needed.

Characteristics of modern business are reflected in transferring positive energy to change the structure of all employees. The strategy of developing standards that ensure food safety is of special importance and role in agricultural production when it comes to especially food production. Export-oriented companies want to develop and implement integrated standards, including: ISO 9000, ISO 14 000, and others.

II. DEVELOPMENT OF STANDARDS FOR FOOD PRODUCTION WITH US

Bearing in mind the fact that all export-oriented enterprises of agrarian industry required to be closely related to the rules and procedures prescribed by the world and our standards, it says that without the implementation of these standards should not expect success agriindustry business with us.

Export business demands are to be met quality system ISO 9000, ISO 14000, ISO 22 000 to start general discussions about work with serious business partners.

HACCP is a requirement, and tickets for export to Western markets. This certificate from a competent certification body is evidence of all buyers of our products that may have confidence in the safety of these products. The process of implementation and development of this standard should be intensified. The essence is to bring together a team of professionals of different profiles ranging from management, production, laboratory, development, quality management systems, maintenance, hygiene and others.

The process is carried out continuously and includes the development of new procedures, review of existing documents, drafting the Rules of quality. In the process of constantly conducts internal audit or by the assessor, or by external auditors.

The basis is that in the process of implementation and development of these standards, there is the possibility of moving the market to check the quality of the end product to preventive management process.

The products generated on the basis of the implementation of the processes of standardizing the application certainly make it possible to win an enviable place in the market in a serious competition.

The trend of fixed investment in this project must be continued, as follows:

1. The introduction of new modern software,
2. The purchase of new equipment from world famous companies,
3. Investment in production equipment,
4. Preparation of product leadership position in the regional market,
5. Lowering the cost of production,
6. The constant increase in production volume,
7. The conquest of new markets, significant investments in sales,
8. The modernization process under modern principles and others.

What are the effects of the introduction of HACCP?

The introduction of standards primarily contributes to our processing and other manufacturing industries, agricultural production commitment to the high quality of the business and producing. Namely, it provides parallel execution of the process narrow specialization of certain types of products, for which the firm may be recognized in the market as well as top quality.

Scientifically based process control system of production and distribution of food products to the identification and assessment of hazards, physical, chemical, toxic, biological risks. This standard is a preventive system that allows consumers healthy foods.

III. BASIC PRINCIPLES OF HACCP STANDARDS

The concept of preventive documented system is implemented through a number of planned and systematic activities. Standard are 7 basic principles (requirements), as follows:

- Identification and analysis of biological and physical risk or,
- Determination of critical control points,
- Establishing critical limits for each critical control point,
- Establishing a monitoring procedure for each critical control point *what, what, who, how,*
- Definition of corrective measures for each critical control point,
- Establishment of verification procedures for each critical control point,
- Preparing documentation (HACCP rules, HACCP plan, plan SSO – standard sanitary operating, SOP - standard operating procedures, manuals/instructions, bills.

These activities apply to all products, and for the group of the same or similar products.

3.1 Role of the Manufacturer

Business activities in the production of foodstuffs are interconnected. Interests and obligations of the manufacturer's agri-food products to its customers the full security related to health in beneficiary food and optimal quality of the final product. The duty of the manufacturer to comply with a number of significant items, as follows:

1. To create optimum hygienic and sanitary conditions for production (building of infrastructure, drive works room for operation, transport and distribution assets to the consumer, etc.).

2. The mutual relations with the supplier system ensure the required quality of raw materials, packaging, packaging, etc.
3. To have a quality technological and measuring equipment, tools and accessories for work and measurement, business suits, shoes and others.
4. To provide competent employees, and health workers.
5. Regular training and education of employees through courses, seminars, exhibitions, fairs and others.
6. Constantly providing high quality energy
7. Regular implementation of monitoring, testing, measurement, inspection, verification of the results achieved in the production process.
8. The application of corrective measures to prevent non-compliant products
9. Preventive measures to prevent possible conflicts in production.
10. Regular contacts with customers provide us with useful information on customer satisfaction and required constant performance improvements, processes, organization, operation, quality systems and other products.

The duty of the company in the application of these standards is not just reduced to the manufacturer or the customer has to state that its measures, responsibilities, authorities, institutions encourage should encourage manufacturers to introduce and develop as a healthy food products are strict quality control. In the EU there is a legal obligation of the above application of standards in all production chains and distribution of food.

How far in the application of HACCP in our agriculture?

To ensure that consumers have safe food primary role and it is imperative that the application of HACCP in food production. The cycle begins with the quality of the raw materials in partner industries, through the services of transport, storage, preparation, to service, security in refrigerated transport companies, restaurants.

With us still insufficient requirement for all as it is in the EU. They have not created the necessary conditions that will monitor the implementation of this process. Specifically, it requires a system of authorized and accredited laboratories, insufficient is achieved national legislation with EU requirements. In most cases outdated certificates to be renewed, but the culture of the company, organization, management, politics, business, personnel and others. It has to be raised to the highest level.

The fact is that this business is extensive, arduous and difficult and requires a great investment of knowledge, money, work engagement, requires a change of bad business, opinion, appearance on the market and customer care, ie. customers.

Why is this work important to develop a Risk Management System?

Standards ISO 22 000 are the framework for managing aspects of food safety and its implementations and development. The basis of the manufacturer's commitment to continuously improve food safety management. Represents a generic standard for all types of businesses small, medium, large, manufacturing and service. It is conducted by identifying potential hazards and risk

assessment on food safety, preventive action control measures, its implementation and monitoring of the effects of these controls. It can be applied in the production of crops, forage, significant food producers and processors, the storage and transportation of food, to distributors and retailers, and most importantly on the measurement of customer satisfaction with these products.

How fact show a degree in International Agribusiness¹ is important because ag-related industries, from farming and livestock to food production and human nutrition, encompass a significant portion of careers worldwide. International agribusiness involves large-scale international business operations, such as production, processing, and distribution of agricultural products and manufacturing of farm machinery, equipment, and supplies internationally.

Important is the program combines training in business, language skills, and economics courses that emphasize the role of trade and development issues that are critical to operating in the internationalized agribusiness sector. International agribusiness provides a foundation for employment with businesses and institutions serving agriculture and rural regions, such as banks and financial institutions, marketing and buying cooperatives, value-added food producers, real estate, land management, agricultural chemical production and sales, farms, and ranches.

Between last the decades, earnings from farming in many developing countries have been depressed by a pro-urban bias in own-country policies, as well as by governments of richer countries favouring their farmers with import barriers and subsidies. Both sets of policies reduced global economic welfare and agricultural trade, and almost certainly added to global inequality and poverty.²

Fact investigation speak thus much scope still remains to improve economic welfare and to reduce poverty by removing remaining trade distortions. This paper summarizes indicators of these trends and fluctuations in farm trade barriers before examining what

"It has been also found that restricted trade regimes amplifies the volatility of world food prices (Tyers & Anderson, 1992). When a country sets a policy isolating the domestic food market from international prices fluctuations, in fact, other countries in turn alter their agricultural trade measures causing the weakening of the original attempt and the increase of the global price volatility (Anderson, 2013).

IV. EFFECTS OF TQM THROUGH THE PROCESS OF BUSINESS REENGINEERING THE EFFICIENCY OF AGRICULTURE OF SMALL AND MEDIUM ENTERPRISES IN SERBIA

Research agriculture of SMEs is important of potentially important generator of economic growth. The contribution of SMEs to economic growth achieved thanks to his penchant for innovative ventures and risk, while paying the price because of high rates of extinction and lower rates of profitability. The SME sector is a place where you are born and implement successful business ideas. A large number of small businesses started its life cycle as a micro- enterprise, while many large companies came from the SME sector (Boskovic & Jovanovic, 2009). This very large companies are more prone to involvement of SMEs in their supply chains, which significantly contribute to increasing the efficiency of the economy.

If you look at the fact that the development of entrepreneurship in small and medium-sized enterprises is the only chance to revive the poor economy, will mention the data relating to the operations of these companies in 2010.

In the non-financial part of the economy of the EU, in 2010. operated over 20.8 million enterprises, of which 99.8 % were SMEs. The SME sector has generated about 67 % of total employment (30 % of micro enterprises, small enterprises 20 % and 17% of medium businesses), and provided jobs for more than two - thirds of the employees.

The contribution of SMEs in total turnover and gross value added, as well as criteria for contribution to the economic wealth of the EU, something weaker, primarily due to size and higher capital intensity of large enterprises, but it is still extremely important.

In the period from 2002 nd to 2010. Net employment has increased at an annual rate of 0.9 %, of which 85 % was achieved in the SME sector which supports the claim according to which SMEs are a steady source of new jobs. On Table 1. shows agribusiness in the SME sector in the period under annual employment growth rate was 1 %, while in large companies was 0.5 %, except in the trade sector (0.7 % and 2.2 % respectively). On Table 2. gives Indicators of development agribusiness of the SME sector in Serbia³.

¹ www.apec.usu.edu) Julia Bronnmann and Frank Asche (2015)., The Value of Product Attributes, Brands and Private Labels: An Analysis of Frozen Seafood in Germany

² Anderson, K . (2013)., Agricultural Economics, JAE e-mail: online library. wiley.com

³ Source: Report on SMEs for 2010.

Table 1: Number of enterprises, employment and gross value added in the EU - 27⁴

	Micro	Small	Medium	SME	Large	Total
Enterprises						
Number	19.198.539	1.378.401	219.252	20.796.192	43.034	20.839.226
%	92,1	6,6	1,1	99,8	0,2	100
Employment						
Broj	38.905.519	26.605.166	21.950.107	87.460.792	43.257.098	130.717.890
%	29,8	20,4	16,8	66,9	33,1	100
BDV						
U mil.eura	1.293.391	1.132.202	1.067.387	3.492.979	2.485.457	5.978.436
%	21,6	18,9	17,9	58,4	41,6	100

Table 2: Indicators of development of the agriindustry SME sector in Serbia⁵

	MSSP		Large Enterprises		Non-financial sector		Share of MSSP	
	2009	2010	2009	2010	2009	2010	2009	2010
Number	314.827	318.54	529	504	315.356	319.044	99,8	99,8
Number Job	872.54	814.585	435.751	412.966	1.308.291	1.227.551	66,7	66,4
Turnover	4.380.545	4.677.933	2.078.312	2.482.401	6.458.857	7.160.334	67,8	65,3
BDV	778.108	817.417	584.771	645.309	1.362.879	1.462.726	57,1	55,9
Exports	275.378	339.845	270.437	393.232	545.814	733.077	50,5	46,4
Imports	627.147	680.549	402.03	573.291	1.029.177	1.253.840	60,9	54,3
Commodity balance	-351.769	-340.704	-131.593	-180.059	-483.363	-520.764	72,8	65,4
Investments	259.796		234.17		493.966		52,6	

In 2010. domestic non-financial sector of the economy employed a total of 1.227.551 persons, of which 814.585 or 66.4 % were employed in the SME sector. In the phase since 2004. Till 2008th year was recorded continuously increasing employment in the said sector, which is to some extent compensated for the reduction of employment in large enterprises. However, in times of crisis interrupted the positive trend of increasing employment in the SME sector, which resulted in a reduction of total employment in the economy of Serbia. In 2010. compared to the previous year, employment in the SME sector decreased by 6.6 % or 57.655 workers.

Small and medium enterprises represent the fastest and certainly the cheapest way for the overall development of the national economy. There are several key reasons:

- The risk of SME is mostly on the side of the entrepreneur,
- SMEs are more flexible than the big companies,
- Quickly adapt to market demands,
- Have low operating costs and lower prices of products/services
- Have greater reliability and efficiency of operations,
- Have a greater opportunity for specialization,
- Innovate faster,
- Easier and cheaper to introduce information technology.

4.1 Plan For Development Agribusiness⁶

Strategy and policy of development as the agriindustrial hub of development of administrative region Central Serbia.

The region Central Serbia is the with longest industrial tradition on Balkans. Its existing industrial structure demanded long term investments, complex infrastructure, permanent high skilled education of labor force and foundation of educational institutions as well long term systematic panning of technological development for agribusiness.

Unfortunately, the economy as well as the economy of entire Serbia is, in the past two decade long period of political and economy crisis, destroyed. Industrial destruction had two characteristic phases: Phase 1- from 1900 to 2000, period marked by fall of Yugoslavia and economic sanctions, isolation of Serbia's industry and Serbia lost all markets, Phase 2- from 2000- today, intense transformation of ownership, when unsuccessful transition process led to loss of human and material resources.

Unsuccessful ownership transformation, specially big companies of great strategic importance for industry in Serbia, as well as general neglect of industry by the state (as a result of strategic orientation on services based economy instead on production), led the industry of Serbia in past 10 years into the difficult situation.

Processing industry in period between 2000 and 2010 lost 47% of industrial workers, so that at the end of 2010 in this branch of industry worked only 320 000 workers.

Industrial production growth index is less than 3% for entire past decade. In the same period, participation of industry in creation of Gross Domestic Product sank from 21,7% to 15,9%.

Next diagram shows agri industrial production growth index:

Such situation requires urgent and decisive long term reaction of state, by adoption of strategy and policy of industrial development in Serbia 2011-2020 (proposition is on in public debate). Industrial transformation has to be

⁴Eurostat/National Statistics Offices of Member States/Cambridge Econometrics/Ecorys.

⁵Source: Report on SMEs for 2010.

⁶Research conducted in cooperation with the Chamber of Commerce of the study environment of business entrepreneurship

long term and highest political priority, as a crucial thing for sustainable development. Recovery of the industry should be made through political initiative and consensus on the national level with partnership of public and private sector. The function and main task of the state is to coordinate this process, create desirable social milieu and secure its long term convergence and stability.

In period between 2011. and 2020. technological policy for Serbia should be focused on three strategic priorities of sustainable recovery and development:

1. Revitalization (initial impulse of recovery through consolidation and bringing into functional state existing production resources, especially large companies and industrial systems)
2. Reengineering (Expansion in existing frameworks through technological modernization and graduate implementation of Hi-Tech content)
3. Development (Change of technological industry profile through migration of center of industrial production from dominant low technological field towards Hi-Tech fields).

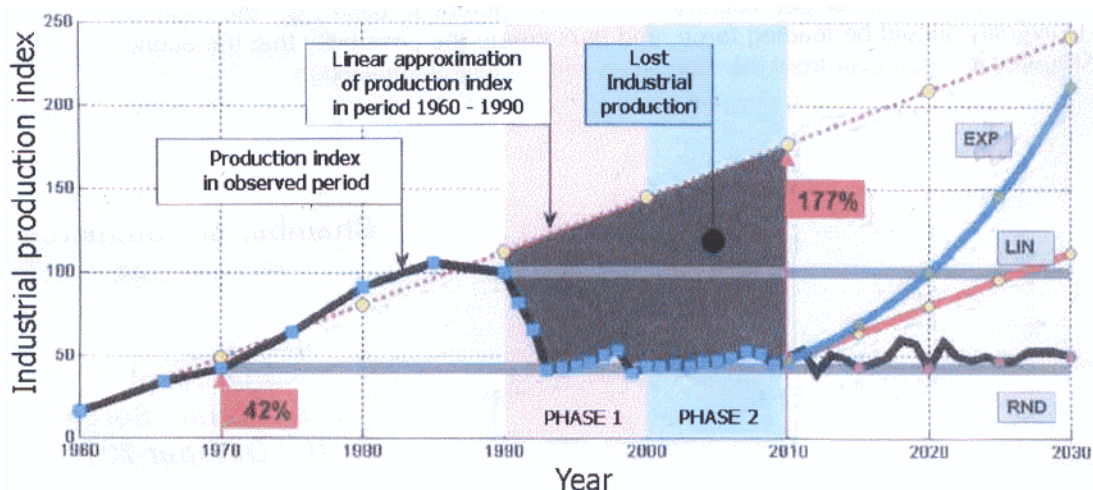
Such strategic development implies that our society recognize importance of entry into innovative, and later the society of knowledge. The realization is possible only when the triangle industry- investment- research is formed. In this triangle research is pragmatic, praxis oriented, innovative, focused on economic growth and money, invested without social component, focused on social priorities and efficient risk management system. These investments create money invested in knowledge, research in R&D is closed.

Having in mind long term concept of future development of Serbia, economy as a former, present and future industrial development hub of Serbia, already implements the strategy of industrial development Serbia with project "Balkans innovative automotive region". This project is based on synergy of human resources, people on

University, economy and institutions (Chambre of Commerce, Agency for regional development, Business Start up center, Business Inovaton Center). Partners on this project are: German City of Leipzig, which already successfully implemented project "Leipzig auto region" and whose experience we are going to use, Italy IPALMO Institute, with which we have signed the Memorandum of Understanding, where our SMEs will have the opportunity to connect with Italian partners and possibility to join the international automotive manufacturer's supplier chain. Increase of competitiveness of our enterprises and all Balkans enterprises will create the network of innovative competitive SMEs which will be the basis for project "Balkans innovative automotive region". This way the region Balkans will become more interesting for dislocation of production of world car manufacturers and suppliers. This project is basically accepted through realization of Excellence which has the obligation to found network of innovative SMEs using corresponding centers in Balkans countries until year 2014 (first phase revitalization of enterprises). With the help of consulting firm "Ernst & Young" is it necessary to write the project until year 2014 and to apply for "European agenda" 2020 (because then the European budget for 2014- 2020 is being formed) and then we will all together go into second phase- reengineering. This project is in accordance with the fair that is being held "SEE Auto Compo Net".

This is the way that real tries to give its own contribution in creation of its own development, compatible with development of our country. This development is based on the foundation of new R&D centers, where University should be leading force, and thus create the possibility that the economy of agibusiness entrepreneurial.

Next diagram shows agri industrial production growth index of Serbia.



V. CONCLUSION

The legislator, ie. the government should introduce a mandatory application and development of HACCP, and 22 000 others how to operate the developed countries of

the European Union to certain regulations to realize the effective protection of consumers.

The analysis of all possible risks determines the probability of the importance of their occurrence and effects that can cause negative effects on human health.

Determination of the critical points is an integral process of realization of the basic items of the HACCP system which aims to control the physical risk to humans.

The introduction and application of this standard is easy if the manufacturer provided new equipment, buildings decorated, good product strategy and implementation in practice, quality mode, it is then only analyze the whole process, describe it and prove that it is ready for certification.

Implementation of quality standards of products and services in agribusiness is the focal point of implementation of the production process, control activities performed and successful placement on the market.

In area agriculture of small and medium-sized enterprises in our country are affected by complex business problems or so business crisis, which has major implications for the efficient and profitable operation of the same as their larger market share.

The methodology of reengineering is an original methodology, which has found wide application in science and world practice. The main feature of this methodology is only the orientation process, and explains the message that "Primary care redesign process reengineering, rather than redesign the organizational structure of certain sectors".

The application of business process reengineering in SMEs has the characteristics of modern business by requiring changes in the internal and external environment and market environment.

Based on the analysis leads to the conclusion that the efficiency of small and medium enterprises significantly improved after the introduction of the concept of reengineering of business processes.

Results also showed that the great success achieved in outcomes based on the application of techniques of TQM. This suggests that the re-engineering of business processes to be used mainly as a tool for improving product development, manufacturing capacity, market development, increasing investment through loans.

Within the contemporary strategic management, presented the concept of TQM model combines organizational theory, the field of quality and IT. He is the only real platform for setting the strategy of improving the quality of enterprises in Serbia.

Implementing TQM model is heavy and long with lots of problems and resistance to any changes within the company and at the state level, because it requires huge cost. However, small and medium enterprises that want to be a successful business, must focus on the proposed model, or some variant based management system.

The introduction of quality management systems in enterprises comes up continuous continuous improvement, increase competitiveness, to increase efficiency and profitability, clear procedures, minimize errors, decrease production time, better motivation, better communication and awareness, to increase the image, safety and reliability of products or services, to better management of human resources, the orientation of the customers.

Limitations and future research

This study is subject to limitations of data collection from secondary sources. Although there are many followers who suggest using TQM, there are obstacles to the implementation of TQM, as a result of increased costs. Critics point out that TQM entails enormous costs of retraining, requires enormous time manager, preferred process over results.

In the future, we can further explore which way total quality management helps improve the business success of small and medium-sized enterprises, particularly in situations where potentially conflicting roles. It would be interesting to examine the extent to which the more techniques of TQM more or less reflected in the operating results of the company.

Progress has been made over the past three decades in reducing agricultural protection in high-income countries and agricultural disincentives in developing countries, but the propensity of governments to insulate their domestic food market from fluctuations in international prices has not waned. Both food-importing and food-exporting countries engage in insulating behaviour, which contributes to the amplification of international food price fluctuations yet does little to advance their national food security.

REFERENCES

- [1] G. Boskovic, A. Jovanovic, "The impact of clusters on the competitiveness of industry and regional development", Economics, Nis, Serbia, 2009, pp. 107-119.
- [2] P. Drucker, "Drucker from day to day", Adizes, Novi Sad, Serbia, 2006, pp. 92- 93.
- [3] S. Janošević, "Management and Strategy", Faculty of Economics, Belgrade, Serbia, 2005th, pp. 132.
- [4] S. B. Kostic, "A new model of TQM and Quality Improvement Strategy Quality", Belgrade, 1998.
- [5] S. Lukic, N. Zivanovic N., "Business process reengineering", Pan- European University APEIRON ", Banja Luka, Bosnia & Hercegovina, 2009, pp. 45-51.
- [6] T.C. Powell, "Total Quality Management as Competitive Advantage: A Review and Empirical Study", Strategic Management Journal, 16 (1), in 1995.
- [7] Rao A. et al. "Total Quality Management: A Functional Perspective Cross", John Wiley & Sons, New York in 1996.
- [8] L. Wall, "Investing in the equity of small firms", Journal of Small Business Management, 45 (1), New York, 2019, pp. 23-27.
- [9] N. Zivanovic, "How to TQM", Andrejevic Foundation, Belgrade, 2000, pp. 60 – 62.
- [10] M., Zivanovic, "Reengineering", Faculty of Entrepreneurial Management, University "Braca Karic", Novi Sad, 2002, pp. 20.
- [11] N. Zivanovic & S. Lukic, "Reengineering", Pan European University, RS, BiH, 2003, pp. 65-81.
- [12] N. Zivanovic, & M. Zivanovic, "Business Reengineering", Faculty of Business Industrial management, University "UNION" Belgrade, 2013.
- [13] N. Zivanovic, & V. Zivanovic, "Strategic management", Faculty of Business Industrial management, University "UNION" Belgrade, 2014, pp. 57.
- [14] R. Radovanovic, "Certification HACCP concept, magazine quality, business policy, p. 38-43, No. 5-6, Belgrade, 2003.
- [15] M. Vujicic, "Agribusiness Management, Faculty of Economics, Kragujevac, 2005.
- [16] www.apec.usu.edu
- [17] www.online library. wiley.com
- [18] Source: Report on SMEs for 2010.