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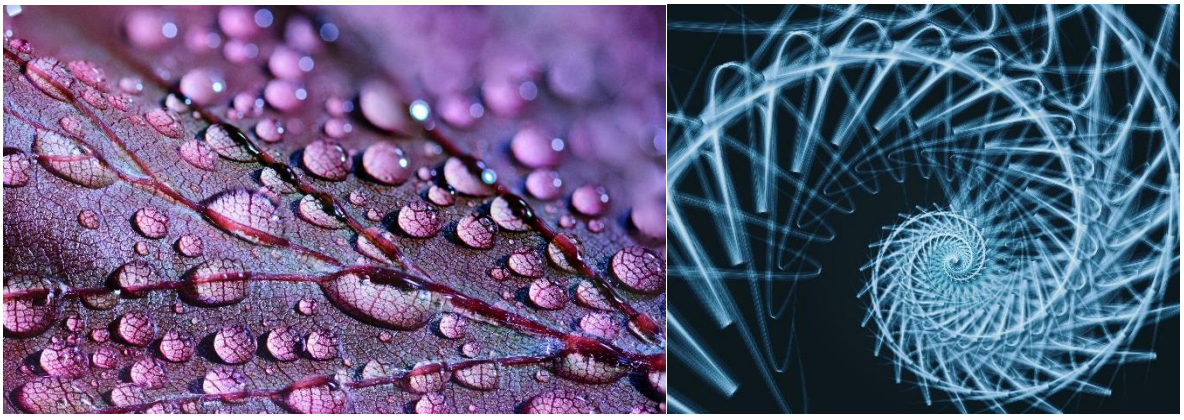

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CONTENT

BUSINESS CHALLENGES IN IMPLEMENTING SOCIAL MEDIA MARKETING. CASE STUDY - COMPARISON BULGARIA AND KOSOVO

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Abstract

This paper seeks to examine the challenges facing businesses in implementing social media marketing, to show customers' perceptions, attitudes and perspectives on social media marketing and online shopping for both countries. The survey is based on primary data that include the results derived from questionnaires between Bulgaria and Kosovo conducted with clients and businesses, so to achieve the objectives and research questions we used the quantitative method. In total there are 120 customers respondents and there are 74 businesses respondents.

Both countries have similarities and differences in terms of the challenges they face: businesses in both countries largely use social media to do marketing; the challenge for businesses in both countries is the lack of qualified staff on social media marketing , which then results in not segmenting the market according to demographics; customers of both countries with high income have a greater tendency to make online shopping than those with lower incomes; but there is a big difference between the two countries in the context of functioning in international markets, also a big difference between the two countries in the realization of online sales. The main limitations in the survey are: the number of samples included in the research and not categorization of products according to function but the treatment of online shopping in general.

Based on the research conducted with clients, we conclude that in Bulgaria and Kosovo clients use social media almost equally and the time they spend with social media is similarly distributed between the two countries. However, the tendency to make online purchases is not the same between the two countries, so there is a big difference between them. Customers in Bulgaria have a greater tendency to make online purchases compared to customers in Kosovo.

Keywords: social media marketing, businesses, customers, online shopping

Abstrakt

Dieses Papier versucht, die Herausforderungen zu untersuchen, denen Unternehmen bei der Implementierung von Social Media Marketing gegenüberstehen, um die Wahrnehmungen, Einstellungen und Perspektiven der Kunden zu Social Media Marketing und Online-Shopping für beide Länder aufzuzeigen. Die Umfrage basiert auf Primärdaten, die die Ergebnisse von Fragebögen umfassen, die zwischen Bulgarien und dem Kosovo mit Kunden und Unternehmen durchgeführt wurden. Um die Ziele und Forschungsfragen zu erreichen, haben wir die quantitative Methode verwendet. Insgesamt sind 120 Kunden und 74 Unternehmen befragt worden.

Beide Länder weisen Ähnlichkeiten und Unterschiede hinsichtlich der Herausforderungen auf, mit denen sie konfrontiert sind: Unternehmen in beiden Ländern nutzen Social Media weitgehend für ihr

Marketing; die Herausforderung für Unternehmen in beiden Ländern ist der Mangel an qualifiziertem Personal für Social Media Marketing , was dann dazu führt, dass der Markt nicht nach demografischen Gesichtspunkten segmentiert wird; Kunden beider Länder mit hohem Einkommen neigen stärker zum Online-Shopping als Kunden mit niedrigerem Einkommen; aber es gibt einen großen Unterschied zwischen den beiden Ländern im Zusammenhang mit dem Funktionieren auf internationalen Märkten, auch einen großen Unterschied zwischen den beiden Ländern bei der Realisierung von Online-Verkäufen. Die Haupteinschränkungen in der Umfrage sind: die Anzahl der in die Untersuchung einbezogenen Stichproben und nicht die Kategorisierung der Produkte nach ihrer Funktion, sondern die Behandlung des Online-Shoppings im Allgemeinen.

Auf der Grundlage der mit den Kunden durchgeführten Untersuchungen kommen wir zu dem Schluss, dass in Bulgarien und im Kosovo die Kunden soziale Medien fast gleich häufig nutzen und dass die Zeit, die sie mit sozialen Medien verbringen, in beiden Ländern ähnlich verteilt ist. Allerdings ist die Tendenz zu Online-Einkäufen in den beiden Ländern nicht gleich, so dass ein großer Unterschied zwischen beiden Ländern besteht. Kunden in Bulgarien haben eine größere Neigung zu Online-Einkäufen als Kunden im Kosovo.

Stichworte: social media marketing, unternehmen, kunden, online - shopping

Résumé

Ce document vise à examiner les défis auxquels sont confrontées les entreprises dans la mise en œuvre du marketing des médias sociaux, afin de montrer les perceptions, les attitudes et les perspectives des clients sur le marketing des médias sociaux et les achats en ligne pour les deux pays. L'enquête est basée sur des données primaires qui incluent les résultats dérivés de questionnaires entre la Bulgarie et le Kosovo menés auprès de clients et d'entreprises. Pour atteindre les objectifs et les questions de recherche, nous avons donc utilisé la méthode quantitative. Au total, 120 clients et 74 entreprises ont répondu à l'enquête.

Les deux pays présentent des similitudes et des différences en termes de défis à relever : les entreprises des deux pays utilisent largement les médias sociaux pour faire du marketing ; le défi pour les entreprises des deux pays est le manque de personnel qualifié en marketing des médias sociaux, ce qui a pour conséquence de ne pas segmenter le marché en fonction de la démographie ; les clients des deux pays ayant des revenus élevés ont plus tendance à faire des achats en ligne que ceux ayant des revenus plus faibles ; mais il y a une grande différence entre les deux pays dans le contexte du fonctionnement sur les marchés internationaux, et aussi une grande différence entre les deux pays dans la réalisation des ventes en ligne. Les principales limites de l'enquête sont : le nombre d'échantillons inclus dans la recherche et non la catégorisation des produits selon leur fonction mais le traitement des achats en ligne en général.

Sur la base des recherches menées auprès des clients, nous concluons qu'en Bulgarie et au Kosovo, les clients utilisent les médias sociaux de manière presque égale et que le temps qu'ils y consacrent est réparti de manière similaire entre les deux pays. Cependant, la tendance à faire des achats en ligne n'est pas la même entre les deux pays, il y a donc une grande différence entre eux. Les clients en Bulgarie ont une plus grande tendance à faire des achats en ligne que les clients au Kosovo.

Mots-clés: marketing des médias sociaux, entreprises, clients, achats en ligne

ntroduction

Just as the use of social media is changing how people live, learn and connect with one another, fundamental shifts are also taking place within businesses with the introduction and use of social media (Jacobsona, Gruzdb and Garcíac, 2020)

Social media growth and popularity have driven companies into social media use (Anandaa, García, & Lambertib, 2016), so social media is becoming both more convenient and more important, leading many companies to use it in external promotions, marketing, customer management, and as an internal channel for employee communications. Marketing realized on social media has received a lot of attention mainly because the attraction rates for social media advertising are more than 55% higher than those for conventional advertising (Seo and Park, 2018).

Seeing the importance and applicability of social media marketing, the paper addresses the theoretical and practical aspects of identifying the challenges facing businesses when doing marketing on social media. It also explores from a customer perspective how social media marketing will be most appropriate, so using these two areas of research will highlight the gap in the demand and supply of social media marketing. Based on this gap we will recommend improving the way you do marketing on social media.

Objectives. According with the purpose of the study, the following objectives have been raised:

1. To identify the challenges facing businesses in implementing social media marketing.
2. To show customers perception, attitude and perspective on social media marketing and online shopping.
3. To measure the dependence between online shopping and demographic variables.

Hypotheses

H_0: There is no statistically significant interrelation that online shopping manifests differently between the demographic variables.

- **H_{01}**: There is no statistically significant interrelation that online shopping manifests differently between the genders.
- **H_{02}**: There is no statistically significant interrelation that online shopping manifests differently between the ages.
- **H_{03}**: There is no statistically significant interrelation that online shopping manifests differently between the levels of education.
- **H_{04}**: There is no statistically significant interrelation that online shopping manifests differently between the incomes.

H: There is statistically significant interrelation that online shopping manifests differently between the demographic variables.

- **H_1**: There is statistically significant interrelation that online shopping manifests differently between the genders.
- **H_2**: There is statistically significant interrelation that online shopping manifests differently between the ages.
- **H_3**: There is statistically significant interrelation that online shopping manifests differently between the levels of education.

- **H_4**: There is statistically significant interrelation that online shopping manifests differently between the incomes.

Methodology. The survey is based on primary data that include the results derived from questionnaires between Bulgaria and Kosovo conducted with clients and businesses, so to achieve the objectives and research questions we used the quantitative method.

The population of this research is separated in two categories, clients and businesses. In total there are 120 customers respondents and there are 74 businesses respondents.

The sample of the research conducted with clients divided by countries are:

- 58 customers from Bulgaria
- 62 customers from Kosovo

The sample of the research conducted with businesses divided by countries are:

- 36 businesses from Bulgaria
- 38 businesses from Kosovo

Instrument reliability analysis is of particular importance, as all analysis and results are derived from it, so to determine instrument reliability we base on the Cronbach alpha coefficient value, which is known as the instrument reliability verification coefficient.

Cronbach's alpha coefficient values for the reliability of the instrument realized with customers is $\alpha = 0.901$. And values for the reliability of the instrument realized with businesses is $\alpha = 0.825$ which implies that the reliability for the both of the instruments is acceptable.

The questionnaires are created through Google Forms and then distributed to the customers and businesses in Bulgaria and Kosovo. Then all the data are analyzed through the Statistical Package for Social Sciences (SPSS).

For the presentation of the results, cross-tabulations were conducted for each questions of the questionnaires, to see the changes in the marketing of social media, between the two countries.

Since demographic data is also part of the questionnaire, we will analyze whether online shopping depends on demographic variables. These analyzes are performed through t-test and ANOVA, or Mann Whitney Test and Kruskal Wallis Test, depending on the distribution of data.

Identifying the social media marketing. Marketing through social media is the latest and popular trend in the market. Traditional marketing tools such as TV, newspapers, magazines have been very expensive and cover a limited targeted market. The traditional marketing strategies were based on focusing on specific markets individually (Nadda, Dadwal , & Firdous, 2015).

Social media marketing is used across sectors and refers to “the use of social media technologies, channels, and software to create, communicate, deliver, and exchange offerings that have value for an organization's stakeholders” (Jacobsona, Gruzdb, & Garcíac, 2020). Social media is a recent phenomenon, and marketers and companies already use social media as part of their marketing strategy (Anandaa, García, & Lambertib, 2016), which helps businesses market their brand to the wider ‘global’ community. Social media platforms are open and accessible to everyone from any country and therefore they offer businesses tremendous opportunities to communicate with communities and build relationships with their target audience (Hyde and Brogan, 2016).

The phenomenon of social media can be explained from three perspectives: **First:** From sociology or anthropology, networks favor interaction between people all around the world. ((Hofacker & Belanche, 2016; Yadav, de Valck, Hennig-Thurau, Hoffman, & Spann, 2013); **Second**: From an economic approach, social media have an important value for the firms that own them, although often users do not pay for these services. (Hofacker & Belanche, 2016; Yadav, de Valck, Hennig-Thurau, Hoffman, & Spann, 2013); **Third**: From a marketing approach, social media function as a market space in which both buyers and sellers exist along with various exchange facilitators all interacting with each other in complex ways. (Hofacker & Belanche, 2016; Yadav, de Valck, Hennig-Thurau, Hoffman, & Spann, 2013).

Social media has changed the basic approach that marketing has in principle. By definition, marketing is a social and managerial process through which individuals and groups benefit from what they need and want through the creation, delivery and exchange of valuable products with others (Kotler & Keller, 2012), whereas social media marketing has actually enabled businesses to get impressions, comments and suggestions from their customers through blogs, photos and ratings and improve their products and services so that customer needs can be addressed in a way more proactive way. So, advertising and marketing have changed completely because of social media (Nadda, Dadwal , & Firdous, 2015).

Social media marketing is a new orientation where businesses are managing to identify target customers. Social media marketing can simply be defined as the use of social media channels to promote a company and its products. (Nadaraja & Yazdanifard, 2013)

This type of marketing can be thought of as a submission of online marketing activities that complement traditional Web-based promotion strategies, such as email newsletters and online advertising campaigns. (Nadaraja & Yazdanifard, 2013; Barefoot & Szabo, 2009).

Social Media Marketing is a completely new way of communication with the consumer. It is also a transition from traditional marketing, where there is one-way communication between a company and its customers (Simon, 2015).

Due to the existence of various factors, social media is the most effective medium in changing brand perception. These factors are:

- **Provides input for the Advertisements:** Social Media can be used to understand the various facilities, items, characteristics and issues that is found in most of the discussions and accordingly these can be used as input for advertising so as to build the brand perception (Tiwari, 2017);
- **Helps in identifying the Targetable audience:** Social media is helpful in identifying the target customers and this can be used to influence the brand perception (Tiwari, 2017);
- **Provides Platform:** Social media provides a platform to increase brand awareness and to reinforce the brands proposition (Tiwari, 2017).
- **Helps to know Consumer's Perception:** The importance of brand largely depends on the perception of the people. It is important to know that perception is a reality (Tiwari, 2017).

If we look at the objectives of social media marketing, these may be listed as increasing sales, increasing brand awareness, improving brand image, managing traffic on online platforms, reducing marketing costs, increasing interaction by encouraging users to share message and content, learning about the views of consumers regarding the firm or the activities of the firm (Gümüş, 2017; Felix, Rauschnabel, & Hinsch, 2017). In addition, social media is a unique platform for marketers to listen to

their customers, what is said about their products by customers and discussion among customers. By doing so, traders can match their marketing activities to customer needs (Helmink, 2013). Additionally, marketers are able to establish two-way communication and interaction with existing and potential customers in a way faster and richer than ever, without any intermediaries ((Gümüş, 2017; Felix, Rauschnabel, & Hinsch, 2017).

Based on this, social media marketing has many advantages. The primary advantages of social media marketing are reducing costs and enhancing reach. The cost of a social media platform is typically lower than other marketing platforms such as face-to face sales people or middlemen or distributors. (Nadaraja & Yazdanifard, 2013). In addition, social media marketing allows firms to reach customers that may not be accessible due to temporal and locational limitations of existing distribution channels (Nadaraja & Yazdanifard, 2013). Social media platforms increase reach and reduce costs by providing three areas of advantage for customers. First, the marketing firm can provide unlimited information to customers without human intervention. Second, social media marketing firm can create interactions by customizing information for individual customers that allow customers to design products and services that meet their specific requirements. (Watson, Pitt, Berthon, & Zinkhan, 2002). Finally, social media platforms can allow transactions between customers and firms that would typically require human contact ((Watson, Pitt, Berthon, & Zinkhan, 2002).

In addition to the advantages, social media marketing also faces challenges and difficulties, creating disadvantages in the application of social media marketing.

The transparency of the web makes online information available to all audiences, and reinforces the need for consistency in the planning, design, implementation and control of online marketing communication (Nadaraja & Yazdanifard, 2013).

Some disadvantages of social media marketing are:

- Social media marketing has the disadvantage that at any time you need to ensure the presence of businesses on social media to give answers to all potential customers and if they are not available at all times to give you answers, then there is a risk that they go to the competition, where there are unlimited offers to make online purchases.
- In marketing realized on social media, it is difficult to measure the success of efforts, it is difficult to measure the effectiveness of brand awareness. There is also the risk of facing negative situations that deviate from reality by damaging the business image and questioning the quality of the products;
- To execute social media marketing, qualified personnel are required, so this makes social media marketing costly;
- The issue of security is another disadvantage that social media marketing faces, so businesses need to secure the social media profiles so that they are not harmed in this way;
- Social media marketing enables business to be very open to competitors, where competition can benefit from the information they receive. It is therefore important to choose what is important to be public and what is not.

Results

Demographic data

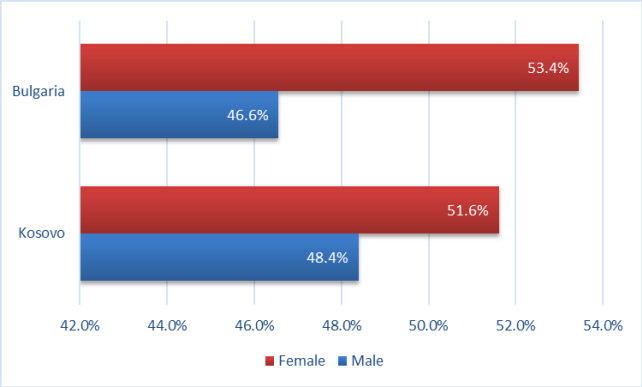


Figure 1. The cross tabulation of gender between Kosovo and Bulgaria.

From the gender graph, participants in the research conducted in Bulgaria were 53.4% female and 46.6% male. In the research conducted in Kosovo, were 51.5% female and 48.4% male. Based on the percentage, we notice that the percentage of gender distribution between the two countries is very close to each other (see fig. 1).

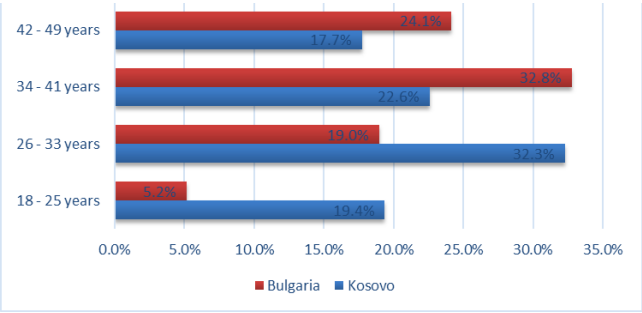


Figure 2. The cross tabulation between Kosovo and Bulgaria of age.

Based on the graph, in Bulgaria were 5.2% of respondents in the category 18 - 25 years, 19% of respondents in the category 26 - 33 years, 32.8% in the category 34 - 41 years, 24.1% of respondents in the category 42 - 49 years old, and 19% of respondents were over 50 years old. In the research conducted in Kosovo were 19.4% in the category 18 - 25 years, 32.3% of respondents in the category 26 - 33 years, 22.6% of respondents in the category 34 - 41 years, 17.7% of respondents in the category 42 - 49 years old and only 8.1% were over 50 years old. (see fig. 2). From the statistics we see that the participants in the research in Kosovo were younger compared to Bulgaria, this may be because the population in Kosovo has an average age of 29.5 years, while the average of age of the population in Bulgaria is 43.4 years.

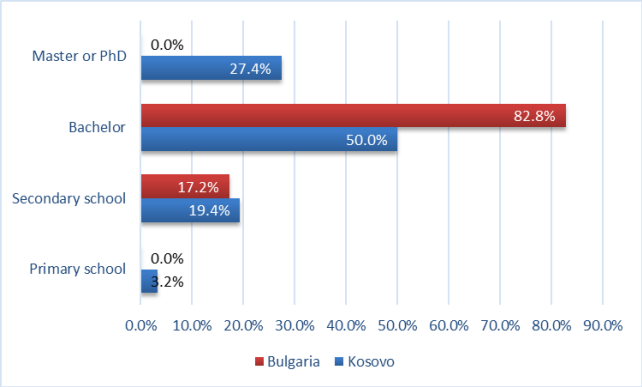


Figure 3. The cross tabulation education between Kosovo and Bulgaria of level of education.

Based on the graph that shows the level of education, respondents from Bulgaria have this distribution: with primary education no respondents, 17.2% of respondents had secondary education, and 82.8% of respondents had completed bachelor studies. Respondents from Kosovo had this distribution in terms of level of education: 3.2% were with primary education, 19.4% with secondary education, 50% had completed bachelor studies and 27.4% had postgraduate education (see fig. 3).

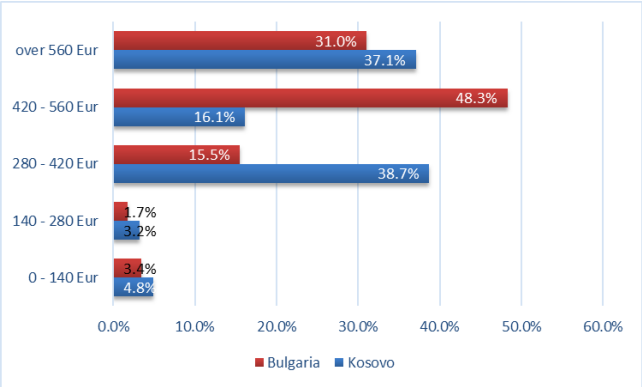


Figure 4. The cross tabulation between Kosovo and Bulgaria of incomes.

Based on the table showing the comparison of incomes between respondents from Bulgaria and Kosovo, we see that there are differences between the two countries in terms of incomes. 3.4% of respondents from Bulgaria had incomes between 0 - 140 Euro, 1.7% had incomes between 140 - 280 Euro, 15.5% had incomes between 280 - 420 Euro, 48.3% had incomes between 420 - 560 Euro and 31% had incomes over 500 Euro. (see fig. 4).

4.8% of respondents from Kosovo had incomes between 0 - 140 Euro, 3.2% had incomes between 140 - 280 Euro, 38.7% had incomes between 280 - 420 Euro, 16.1% had incomes between 420 - 560 Euro and 37.1% had incomes over 500 Euro.

Customer research

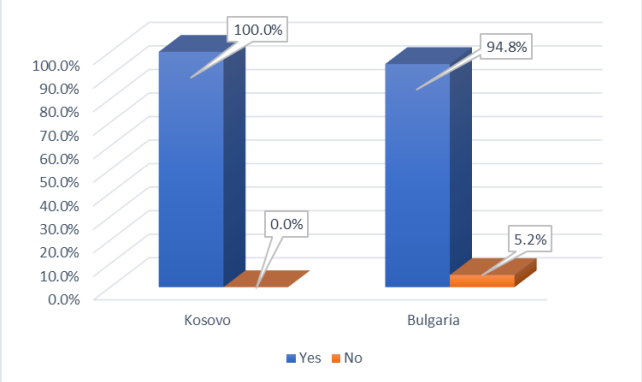


Figure 5. The cross tabulation for the use of social networks between Bulgaria and Kosovo.

Based on the graph, 94.8% of respondents from Bulgaria have been declared that are using social media, while 5.2% do not use social media. While respondents from Kosovo have been declared 100% that they are users of social media (see fig. 5).

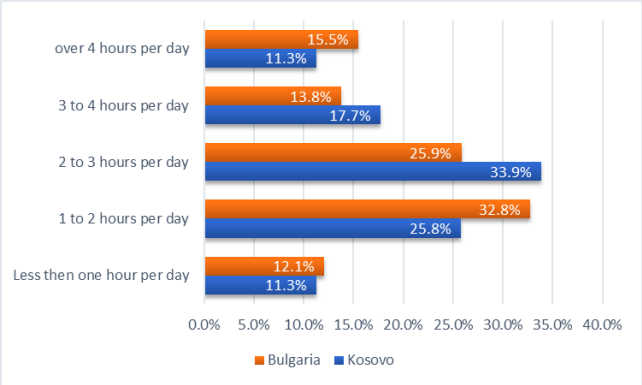


Figure 6. The cross tabulation between Bulgaria and Kosovo for the spent time on social media.

In Bulgaria, 15.5% of respondents were answered, that they use social media per day over 4 hours, 13.8% use them 3 to 4 hours per day, 25.9% use them 2 to 3 hours, 32.8% use them 1 to 2 hours per day, and 12.1% use them less than one hour per day. While in Kosovo, the respondents that were answered, 11.3% use social media per day over 4 hours, 17.7% use them 3 to 4 hours per day, 33.9% use them 2 to 3 hours per day, 25.8% use them 1 to 2 hours per day and the respondents that use social media less than one hours per day were 11.3%. (see fig.6)

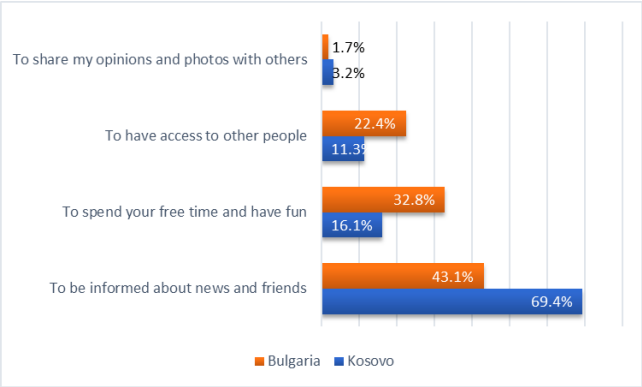


Figure 7. The cross tabulation between Bulgaria and Kosovo for the reason for using social media.

In terms of why social media is used the most, in Bulgaria 43.1% of customers use social media to be informed, 32.8% use it to spend time and have fun, 22.4% use it to have access with other people, and 1.7% to share opinions and photos with others. In Kosovo 69.4% use social media to be informed about news, 16.1% to spend time and have fun, 11.3% to have access to other people and 3.2% to share opinions and photos with others (see fig. 7).

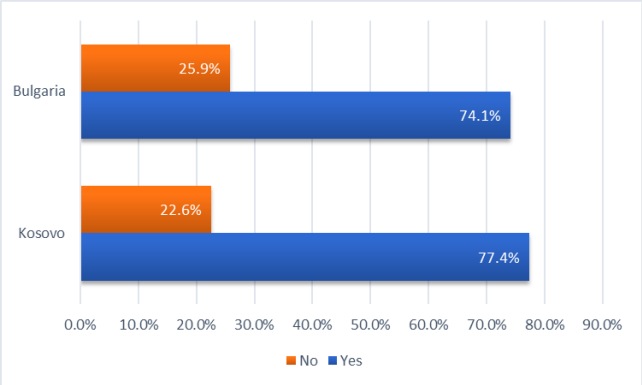


Figure 8. The cross tabulation for online purchases between Bulgaria and Kosovo.

In survey conducted in Bulgaria, 74.1% of respondents stated that they bought online products and 25.9% of them never bought online products. In Kosovo, 77.4% of respondents bought products, while 22.6% did not. According to the analysis, customers of both countries have a similar tendency to make online purchases. (see fig. 8).

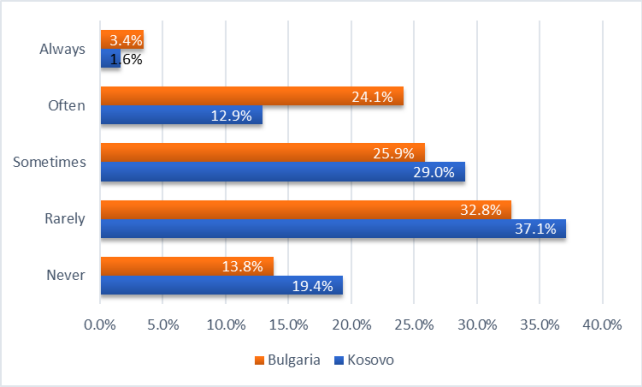


Figure 9. The cross tabulation between Bulgaria and Kosovo for frequency of online shopping.

In Bulgaria, 13.8% of customers say they never make online shopping, 32.8% rarely make online shopping, 25.9% sometimes, 24.1% often, and 3.4% say they always make online shopping. Whereas in Kosovo 19.4% of business customers make online shopping, 37.1% rarely make online shopping, 29% sometimes, 12.9% often and only 1.6% have stated that they always make online shopping. (see fig. 9).

According to the percentages, the frequency of online shopping is similar between the two countries. In Bulgaria 56.9% of respondents are answered, that they purchase 0-20% in online shopping, 29.3% in category 20-40%, 10.3% in category 40-

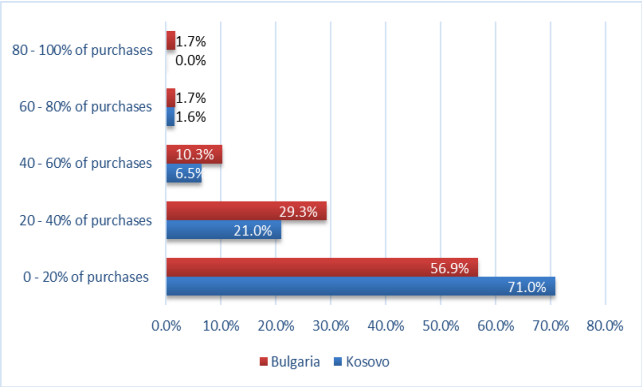


Figure 10. The cross tabulation between Bulgaria and Kosovo for the percentage of online purchases.

60%, 1.7% in category 60-80% and 1.7% are answered, that 80-100% purchase in online shopping. While in Kosovo 71% of respondents purchase 0-20% in online shopping, 21% answered in category 20-40%, 6.5% in category 40-60%, just 1.6% were in category 60-80% and no one answered in category 80-100% of purchases. (see fig. 10).

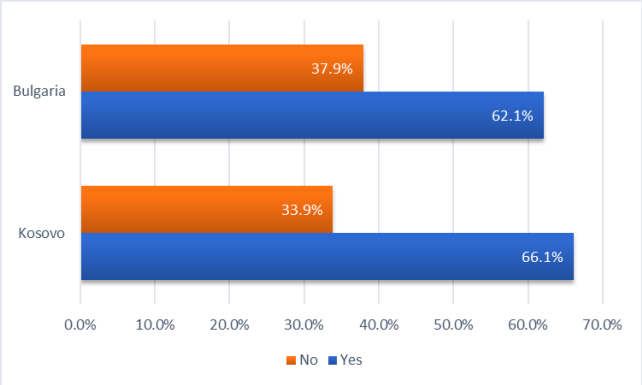


Figure 11. The cross tabulation between Bulgaria and Kosovo for knowledge of how ads appear on social media.

In Bulgaria, 62.1% of customers had knowledge of how ads appeared on social media, and 37.9% had no knowledge. In Kosovo, 66.1% of customers had knowledge of how ads appeared on social media and 33.9% had no knowledge. So, the clients of both countries were approximately the same informed about the appearance of ads on social media (see fig. 11).

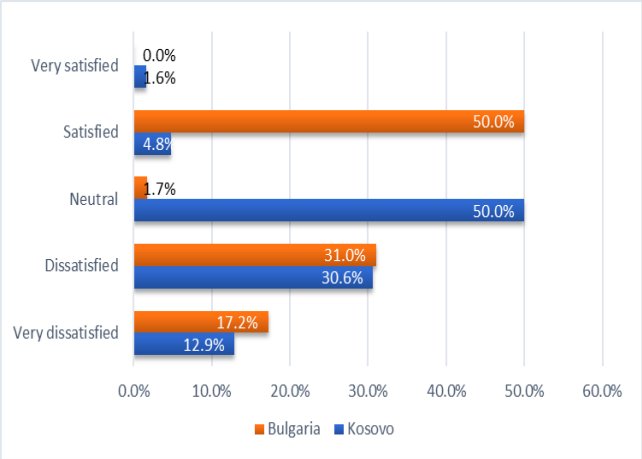


Figure 12. The cross tabulation between Bulgaria and Kosovo for the level of satisfaction of ads that appear on social media.

In Bulgaria 17.2% of customers were very dissatisfied with the ads that appear on social media, 31% dissatisfied, 1.7% remained neutral on this issue, 50% satisfied. In Kosovo, 12.9% of customers were very dissatisfied with the ads that appear on social media, 30.6% dissatisfied, 50% remained neutral regarding this issue, 4.8% satisfied and only 1.6% were very satisfied (see fig.11). According to statistics, there is a big difference in customer satisfaction between the two countries with the ads that appears on social media, where we see that the most dissatisfied are customers from Kosovo. (see fig. 12).

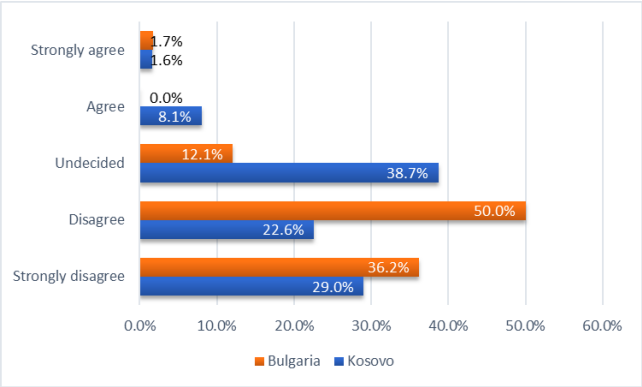


Figure 13. The cross-tabulations between Bulgaria and Kosovo on the degree of compliance in the use of personal data for the presentation of ads according to personal

In Bulgaria 36.2% of customers were strongly disagree to use their personal data to display ads according to their personal interest, 50% were disagree, 12.1% were undecided and only 1.7% were strongly agree see fig. 12). In Kosovo 29% of customers were strongly disagree to use their personal data to display ads according to their personal interest, 22.6% were disagree, 38.7 %% were undecided and only 1.6% were strongly agree. (see fig. 13).

Verification of hypotheses

According to the results of the analysis, in Bulgaria the average of participant's male is 2.74 and females is 2.68. So, both of genders have stated that sometimes make online shopping. In Kosovo, the average of participant's male is 2.47 and for females is 2.34. So, both of genders have expressed that they sometimes make online shopping (see table 1).

Table 1. Descriptive statistics for online shopping by gender. Source: own survey, 2020.

Country	**Group Statistics**					
		Gender	N	Mean	Std. Deviation	Std. Error Mean
Bulgaria	**Online shopping**	Male	27	2.74	0.903	0.174
		Female	31	2.68	1.249	0.224
Kosovo		Male	30	2.47	1.074	0.196
		Female	32	2.34	0.937	0.166

Based on the gender of the two countries, we see that there is no significant difference between the groups.

In the research conducted in Bulgaria, also the result of Sig (2 - tailed) where p = 0.828> 0.05 shows that there is no significant difference between the groups average. In the research conducted in Kosovo, the result of Sig (2 - tailed) where p = 0.632 > 0.05 shows that there is no significant difference between the group averages. Based on the significance for both states, we accept the null hypothesis which states that there is no statistically significant interrelation that online shopping manifests differently between the genders.

Table 2. T - test for dependence of online purchases by gender. Source: own survey, 2020.

Independent Samples Test											
Country			Levene's Test for Equality of Variances		t-test for Equality of Means						
										95% Confidence Interval of the Difference	
			F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Bulgaria	Online shopping	Equal variances assumed	5.61	0.02	0.21	56	0.828	0.06	0.29	-0.51	0.64
		Equal variances not assumed			0.22	54.26	0.824	0.06	0.28	-0.50	0.63
Kosovo		Equal variances assumed	0.72	0.39	0.48	60	0.632	0.12	0.25	-0.38	0.63
		Equal variances not assumed			0.48	57.67	0.634	0.12	0.25	-0.39	0.64

Before the ANOVA test was performed, it was verified whether the data met the condition for normal distribution and homogeneity of variance between ages. Thus, Levene's test for variance homogeneity between groups turned out to be greater than p> 0.05, indicating that the variances are the same for all age groups and that the results obtained from the analysis of variance are reliable for both countries (see table 2).

According to the ANOVA test we confirm the null hypothesis which says that there is no statistically significant interrelation that online shopping manifests differently between the ages based on p > 0.05 for both states (for Bulgaria p = 0.08 and for Kosovo p = 0.673).

Table 3. ANOVA for dependence of online shopping by age. Source: own survey, 2020.

ANOVA							
Country			Sum of Squares	df	Mean Square	F	Sig.
Bulgaria	Online shopping	Between Groups	9.524	4	2.381	2.157	0.086
		Within Groups	58.493	53	1.104		
		Total	68.017	57			
Kosovo		Between Groups	2.414	4	0.603	0.588	0.673
		Within Groups	58.506	57	1.026		
		Total	60.919	61			

Before performing the ANOVA test, variance homogeneity (Levene's test: sig: p > .05) and normal data distribution were confirmed.

According to the ANOVA test we confirm the null hypothesis which says that there is no statistically significant interrelation that online shopping manifests differently between the levels of education based on p > 0.05 for both states (for Bulgaria p = 0.198 and for Kosovo p = 0.163).

Table 4. ANOVA for dependence of online purchases by level of education. Source: own survey, 2020.

ANOVA							
Country			Sum of Squares	df	Mean Square	F	Sig.
Bulgaria	Online shopping	Between Groups	2.001	1	2.001	1.697	0.198
		Within Groups	66.017	56	1.179		
		Total	68.017	57			
Kosovo		Between Groups	5.111	3	1.704	1.771	0.163
		Within Groups	55.809	58	0.962		
		Total	60.919	61			

Initially homogeneity of variance (Levene's test: sig: $p > .05$) and normal data distribution were confirmed.

From ANOVA results show that there is a statistically significant relationship between different income groups and online shopping, based on $p < 0.05$. So, in this case, we refuse the zero hypothesis and accept the alternative hypothesis, because according to the analysis we came to the conclusion that there is statistically significant interrelation that online shopping manifests differently between the incomes. So, customers who have higher incomes have a greater tendency to make online shopping.

Table 5. ANOVA for dependence of online purchases by incomes. Source: own survey, 2020.

ANOVA							
Country			Sum of Squares	df	Mean Square	F	Sig.
Bulgaria	Online shopping	Between Groups	17.271	4	4.318	4.510	0.003
		Within Groups	50.746	53	0.957		
		Total	68.017	57			
Kosovo		Between Groups	2.934	4	0.733	0.721	0.001
		Within Groups	57.986	57	1.017		
		Total	60.919	61			

Businesses research

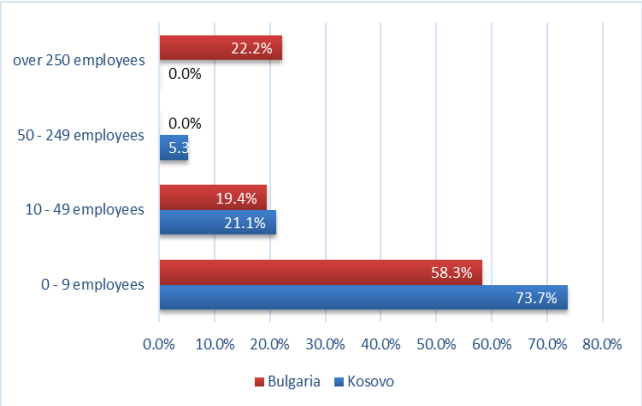


Figure 14. The cross-tabulations between Bulgaria and Kosovo for number of employees.

Part of the research were 58.3% Bulgarian businesses that have 0 - 9 employees, 19.4% with 10 - 49 employees and 22.2% businesses with over 250 employees. In Kosovo, there were 73.7% businesses with 0 - 9 employees, 21.1% with 10 - 49 employees and 5.3% with 50 - 249 employees (see fig. 14).

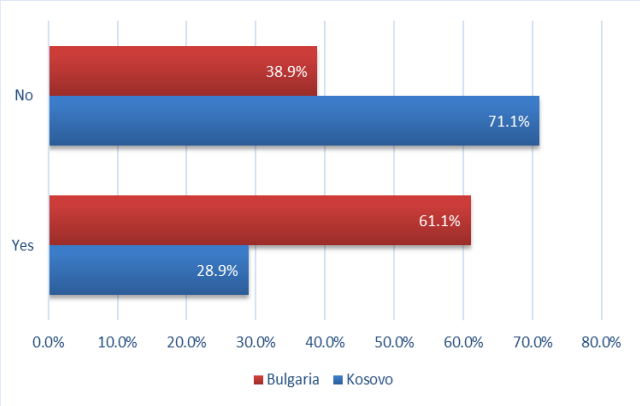


Figure 15. The cross-tabulations between Bulgaria and Kosovo for operation in international markets.

In Bulgaria, 61.1% of businesses operate in international markets and 38% do not. In Kosovo, 28.9% of businesses operate in international markets and 71.1% do not. According to the research results, there is a big difference in terms of operation in international markets between the two countries. Bulgarian business operates more in international markets than Kosovar businesses (see fig. 15).

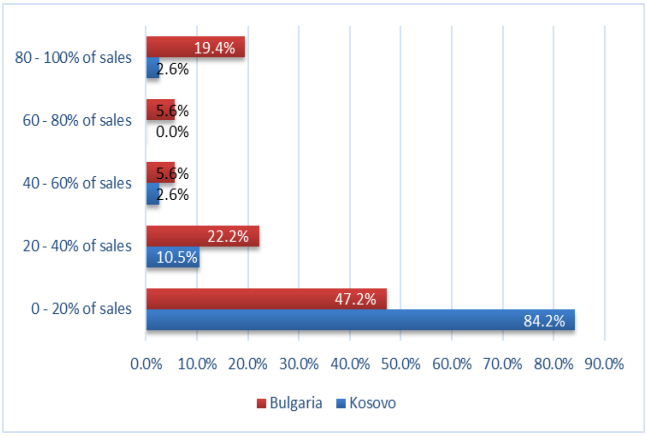


Figure 16. The cross - tabulations between Bulgaria and Kosovo for the percentage of sales made internationally.

In Bulgaria, 47.2% of respondents are answered that they have 0-20% of their sales in international market, 22.2% are answered that their sales in international market are 20-40%, 5.6% respondents have theirs sales in international market, about 40 -60% of total sales, Also 5.6% other respondents are answered that their sales in international market are 60-80%, and 19.4% of respondents, almost all sales do internationally, with a share about 80-100% of total sales (see fig. 16). While in Kosovo, 84.2% of respondents almost all sales do in domestic market, just 0-20% of sales do internationally, 10.5% answered that their sales in the international market are about 20-40% of total sales. Just 2.6% of respondents answered that their sales are 40-60% internationally, also 2.6% of respondents are answered that they do their sales almost totally in international market.

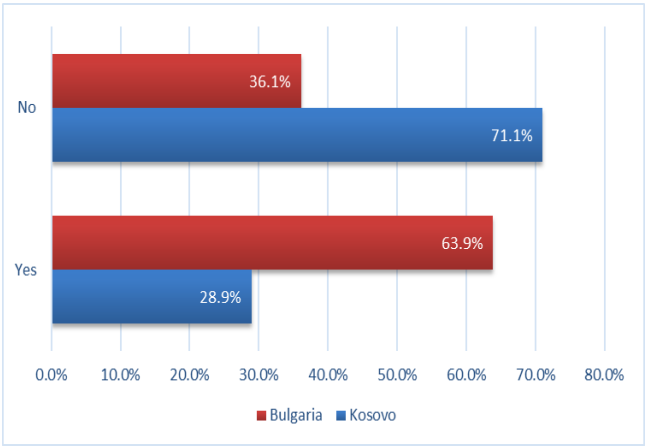


Figure 17. The cross - tabulations between Bulgaria and Kosovo for making online sales.

In Bulgaria, businesses reported 63.9% who sell online and 36.1% do not sell online. In Kosovo, 28.9% of businesses make online sales and 71.1% state that they do not make online purchases (see fig. 17).

The graph shows a difference between the two countries in terms of online sales, where businesses in Bulgaria tend to make more online sales than traditional sales. While in Kosovo it is the complete opposite, businesses sell more in the traditional way than in online way.

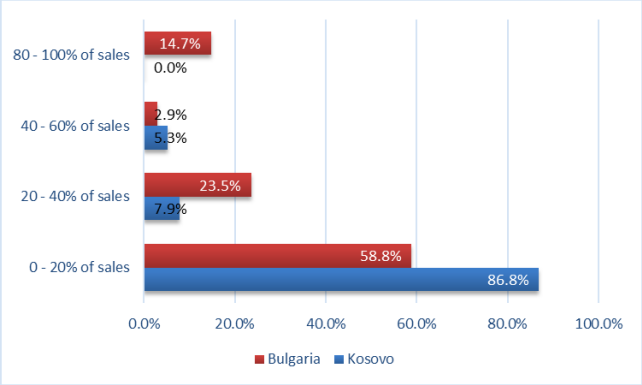


Figure 18. The cross - tabulations between Bulgaria and Kosovo for the percentage of sales made online.

In Bulgaria 58.8% of respondents are answered, that they sale 0-20% in online way, 23.5% of them sell online about 20-40% of total sales, just 2.9% of respondents sell in online way about 40-60% of total sales, and 14.7% answered that they almost sell online with the share 80-100% of total sales. While in Kosovo 86.8% of respondents sell in online just 0-20% of total sales, 7.9% of them sell online about 20-40% and 5.3% answered that they sell online 40-60% of total sales (see fig. 18).

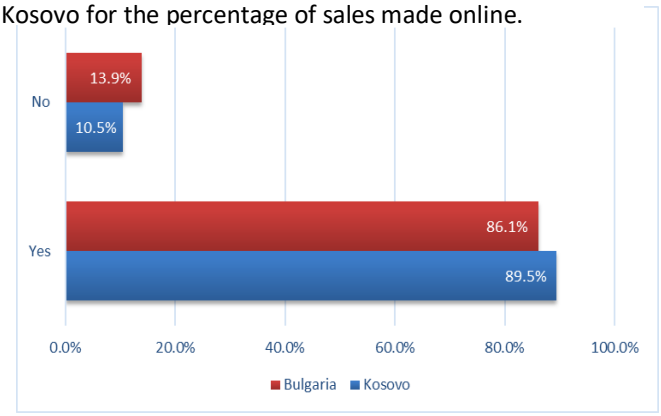


Figure 19. The cross - tabulations between Bulgaria and Kosovo for using social media to do marketing.

In Bulgaria, of all the businesses surveyed, 86.1% said they use social media to do marketing and only 13.9% do not. In Kosovo, 89.5% of businesses use social media to do marketing and 10.5% of them do not use it. According to statistics we see that businesses in Bulgaria and Kosovo are more oriented to do social media marketing (see fig. 19).

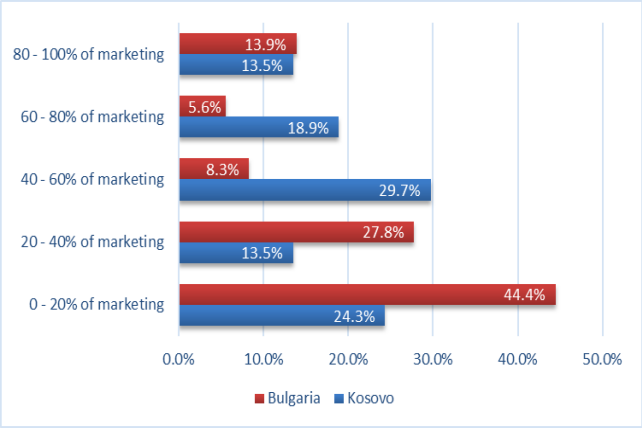


Figure 20. The cross - tabulations between Bulgaria and Kosovo for percent of using social media to do marketing.

In Bulgaria, 44.4% of companies answered that use marketing in social networks just 0 - 20% of marketing activities, 27.8% of respondents answered that use marketing in social networks about 20 - 40% of their marketing activities, 8.3% have used social networks for marketing activities from 40 - 60% of total marketing activities, just 5.6% of respondents answered that use 60 - 80% of marketing in social networks, and 13.9% of respondents answered that almost all of marketing activities have concentrated in social networks, while in Kosovo, 24.3% of companies answered that use marketing in social networks just 0 - 20% of their marketing activities, 13.5% of respondents answered that use marketing in social networks about 20 - 40% of theirs marketing activities, 29.7% of them answered that use 40 - 60% of marketing in social networks, 18.9% of respondents use marketing activities in social networks from 60

- 80% of their activities, and 13.5% are answered that almost their marketing activities have concentrated in social networks (see fig. 20).

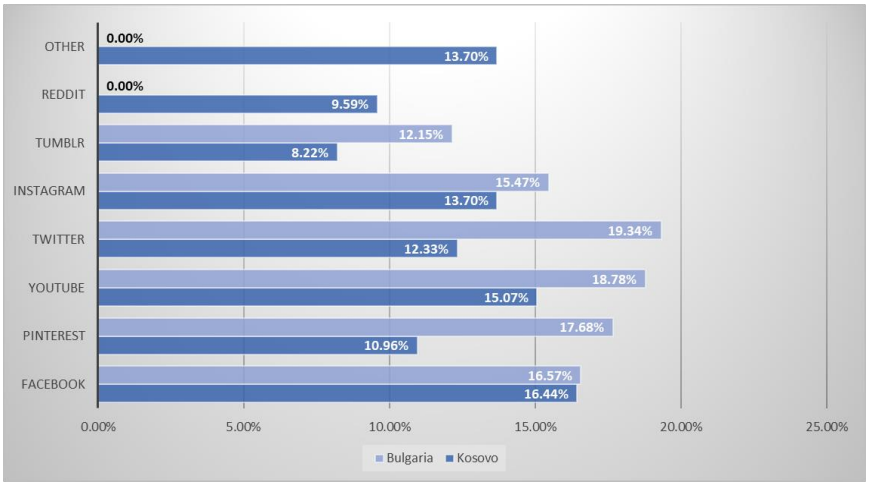


Figure 21. Cross - tabulations between Bulgaria and Kosovo for distribution of choosing Social Media for doing Marketing.

The choosing of the social media to do marketing by companies in Bulgaria are: Facebook with 16.57%, Pinterest with 17.68%, YouTube with 18.78%, Twitter with 19.34%, Instagram with 15.57%, Tumblr with 12.15%, Reddit and other social media with 0%. The choosing of the social media to do marketing by companies in Kosovo are: Facebook with 16.44%, Pinterest with 10.96%, YouTube with 15.07%, Twitter with 12.33%, Instagram with 13.70%, Tumblr with 8.22%, Reddit with 9.58% and other social media with 13.70% (see fig. 21).

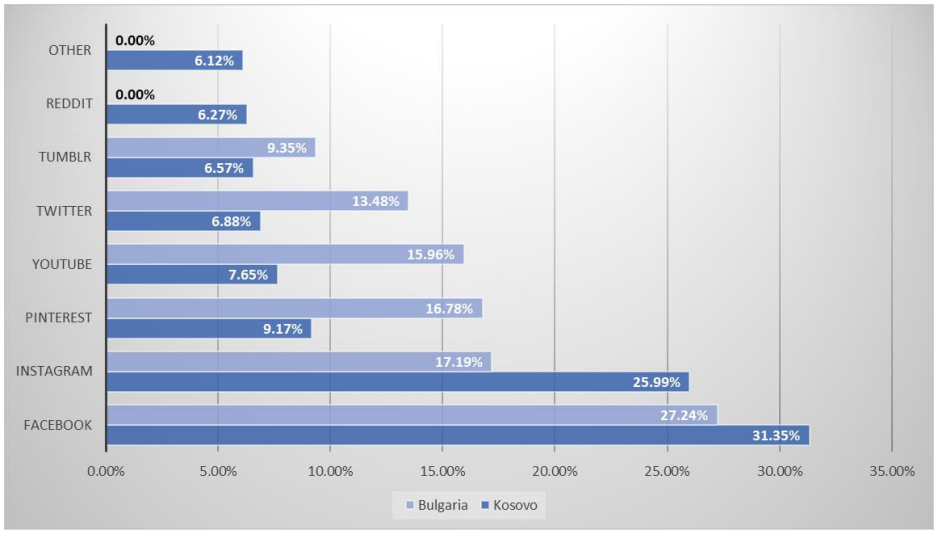
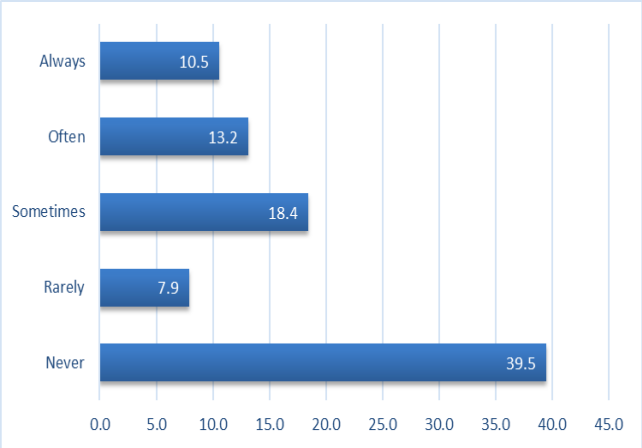


Figure 22. Cross - tabulations between Bulgaria and Kosovo for distribution of Social Media Marketing.

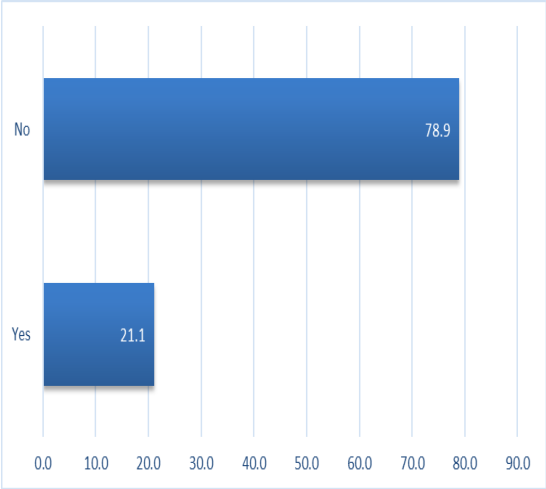
Both Bulgarian and Kosovar businesses responded that they mostly use Facebook to do marketing in social media. Facebook is used by Bulgarians with 27.24%, while in Kosovars with 31.35% of businesses. Instagram is used by Bulgarians with 17.19%, while Kosovars with 25.99% of businesses. Pinterest is used

by Bulgarians with 16.78%, while in Kosovars only 9.17% of businesses. YouTube is used by Bulgarians with 15.96%, while in Kosovo 7.65% of businesses. Twitter is used by Bulgaria with 13,48%, while in Kosovo with 6.88% of businesses. Tumblr is used by Bulgarians with 9.35%, while Kosovars with 6.57% of businesses. Reddit is used by Kosovars with 6.27%, while Bulgarian with 0% of businesses. And the other social media are used by Kosovars with 6.12%, while Bulgarian with 0% of businesses (see fig. 22). As, it is presented in figure 21 and 22, there is a difference between how the businesses choose the social media and how much the businesses share the percentage of doing marketing in social media. The choose is shared in more social media, but the percentage of doing marketing is more in Facebook for both of countries, and Instagram is more in Kosovars businesses.



According to the research results, 39.5% of businesses in both countries never segment the market according to demographics, 7.9% rarely, 18.4% sometimes, 13.3% often and 10.5% always (see fig. 23).

Figure 23. Segmentation of the market.



In research conducted in Bulgaria and Kosovo, just some businesses have qualified staff for social media marketing. Of the businesses surveyed, 21.1% had qualified staff for social media marketing and 78.9% did not (fig. 24).

Figure 24. The existence of qualified staff for social media marketing.

According to the research results, 34.2% of businesses choose social media to do marketing by number of users, 2.6% by price per click, 15.8% according to the use of social network for the specific segment of clients, 18.4% were for the option according to all of the above, 26.3% were for the none of the above option (fig. 25).

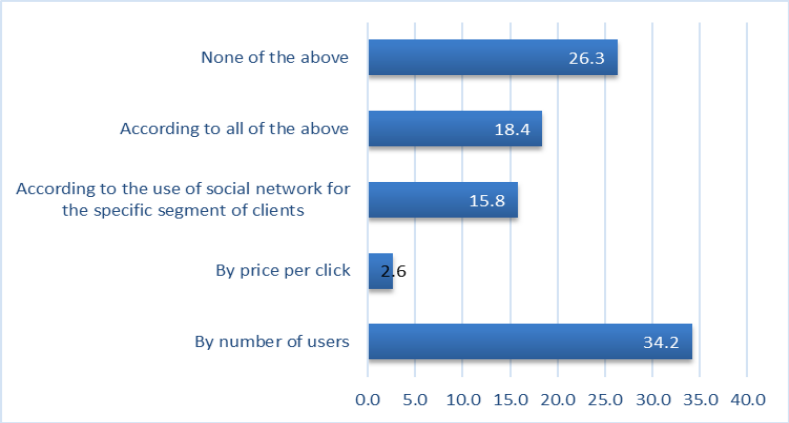


Figure 25. The ways of choosing do marketing in social media.

Conclusions and Recommendation

Based on the research conducted with clients, we conclude that in Bulgaria and Kosovo clients use social media almost equally and the time they spend with social media is similarly distributed between the two countries. However, the tendency to make online purchases is not the same between the two countries, so there is a big difference between them. Customers in Bulgaria have a greater tendency to make online purchases compared to customers in Kosovo.

Regarding the knowledge of customers about the way of presenting advertisements on social media, we come to the conclusion that customers of both countries have considerable knowledge and at approximate levels of how advertisements are presented on social media. They were also against giving their personal data so that the advertisements could be presented to you according to the personal interests of each client. This is why customers are largely unhappy with the ads that appear to you on their social networks.

Based on business research, there is a big difference between the two countries in the context of operating in international markets where Bulgarian businesses operate more than Kosovar businesses in international markets. There is also a big difference between the two countries in the realization of online sales, which shows that businesses in Bulgaria have a greater tendency to realize online sales than businesses in Kosovo.

Despite the difference between the two countries in the realization of online sales, this difference does not exist in the use of social media to do marketing, which means that social media marketing is largely used by businesses in both countries.

According to the analysis, we conclude that the challenge for businesses is the lack of qualified staff on social media marketing, which then consequently has market non segmentation the market according to demographics but finding another way to do marketing. This could be the wrong path which will directly affect the number of online sales or traditional sales as well. The reason why market segmentation is important is because according to tests it has been found that customers with higher incomes have a greater tendency to make online shopping compared to those with lower incomes. So,

online shopping is in direct proportion to incomes, where with the growth of one grows the other or vice versa.

Although according to statistical tests it has shown that other demographic variables such as gender, age and level of education tend to make the same online purchases, this is in general for online purchases, but not for different categories of products which are shared based on preference of demographic categories.

Based on these conclusions, we recommend that any business that claims to do social media marketing have qualified staff for social media marketing, because the lack of these employees to do marketing on social media will increase the cost of marketing for clients. Market segmentation according to demographics and customer preferences is the only way that social media marketing is carried out in the right way, thus increasing sales.

Given that in Kosovo businesses conduct much less online sales than businesses in Bulgaria, we recommend that problems be identified that make online sales smaller than traditional sales.

References

Anandaa, A. S., García, Á. H., & Lambertib, L. (2016, March 11). A comprehensive framework of social media marketing strategic actions for marketing organizations. *Journal of Innovation & Knowledge*. Barefoot, D., & Szabo, J. (2009). *Friends with benefits: A social media-marketing handbook.* San Francisco: No Starch Press.

Felix, R., Rauschnabel, P. A., & Hinsch, C. (2017, January). Elements of strategic social media marketing: A holistic framework. *Journal of Business Research, 17*, 118-126. doi:https://doi.org/10.1016/j.jbusres.2016.05.001

Gümüş, N. (2017, March). THE EFFECTS OF SOCIAL MEDIA CONTENT MARKETING ACTIVITIES OF FIRMS ON CONSUMERS' BRAND FOLLOWING BEHAVIOR. *Academic Research International, 8*. Retrieved from https://www.researchgate.net/publication/315663050_THE_EFFECTS_OF_SOCIAL_MEDIA_CONTENT_MARKETING_ACTIVITIES_OF_FIRMS_ON_CONSUMERS'_BRAND_FOLLOWING_BEHAVIOR

Helmink, L. (2013, August). Objectives, strategies and indicators for Social Media Marketing. Retrieved from https://essay.utwente.nl/63708/1/Objectives,_strategies_and_indicators_for_Social_Media_Marketing_-_Luc_Helmink_(s1018647)_-_21082013.pdf

Hofacker, C., & Belanche, D. (2016, 09). Eight social media challenges for marketing managers. *Spanish Journal of Marketing, 20*(2), 73-80. doi:https://doi.org/10.1016/j.sjme.2016.07.003

Hyde, S., & Brogan , C. (2016). *The Zen of Social Media Marketing: An Easier Way to Build Credibility, Generate Buzz, and Increase Revenue.*

Jacobsona, J., Gruzdb, A., & Garcíac, Á. H. (2020, March). Social media marketing: Who is watching the watchers? *Journal of Retailing and Consumer Services, 53*. doi:https://doi.org/10.1016/j.jretconser.2019.03.001

Kotler, P., & Keller , K. (2012). Marketing Management.

Nadaraja, R., & Yazdanifard, R. (2013, September). Social Media Marketing: Advantages and disatvantages. Retrieved from file:///C:/Users/arber/Downloads/SOCIALMEDIAMARKETING.pdf

Nadda, V. K., Dadwal , S. S., & Firdous, A. (2015). Social Media Marketing. Retrieved 2020, from https://www.researchgate.net/publication/297056488_Social_media_marketing

Seo, E.-J., & Park, J.-W. (2018, January). A study on the effects of social media marketing activities on brand equity and customer response in the airline industry. *Journal of Air Transport Management, 66*, 36 - 41. doi:http://dx.doi.org/10.1016/j.jairtraman.2017.09.014

Simon, L. (2015). *Social Media Marketing: Strategic Tool in Business.* doi:DOI 10.17605/OSF.IO/UBTGW

Tiwari, D. K. (2017). A Study of Effect of Social Media on Buying Behavior of Customers with Respect to Online Branding & Brand Perception. *International Journal of Scientific Engineering and Science, 1*(11), 36 - 41. Retrieved from http://ijses.com/wp-content/uploads/2017/11/54-IJSES-V1N11.pdf

Watson, T. R., Pitt, L. F., Berthon, P., & Zinkhan, G. M. (2002, September). U-commerce: Expanding the universe of marketing. *Journal of the Academy of Marketing Science volume*.

Yadav, M. S., de Valck, K., Hennig-Thurau, T., Hoffman, D. L., & Spann, M. (2013, 11). Social Commerce: A Contingency Framework for Assessing Marketing Potential. *Journal of Interactive Marketing, 27*(4), 311-323. doi:https://doi.org/10.1016/j.intmar.2013.09.001

PROFILING THE IMPACT OF BUSINESS MODEL ON LEVEL OF RETURN. THE CASE OF WINE CELLARS IN SOUTHERN BULGARIA

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Abstract

Profitability is an economic category of fundamental importance to any business organization. The business model, in turn, is the construction on which the enterprise operates. There are several types of business models of wine cellars in the country - wine cellars with priority wine production, wine cellars with priority wine tourism and wine cellars combining wine production with tourist activity. The types of profitability investigated as an effective indicator of the management of wine companies are: return on assets, profitability of sales and return on equity. The purpose of the article is to examine the profile of business models of wineries in South Bulgaria and their impact on level of returns. The main method for analyzing and evaluating the profitability of a wine business is scientific abstraction. An additional method that is used is the comparative method. The analysis shows that the return of sales is determined mostly by the chosen business model in the industry. As the most successful and had a positive impact on the return of sales business model that manages to combine the production and marketing of wine tourism (wine tourism). In terms of return on assets and equity, the choice of business model does not play a critical role.

Keywords: return, business model, wine, tourism, profiling

Abstrakt

Rentabilität ist eine wirtschaftliche Kategorie von grundlegender Bedeutung für jede Unternehmensorganisation. Das Geschäftsmodell wiederum ist die Konstruktion, auf der das Unternehmen operiert. Es gibt mehrere Arten von Geschäftsmodellen von Weinkellereien im Land - Weinkellereien mit vorrangiger Weinproduktion, Weinkellereien mit vorrangiger Weintouristik und Weinkellereien, die Weinproduktion mit touristischer Aktivität kombinieren. Die Arten der Rentabilität, die als wirksamer Indikator für das Management von Weinunternehmen untersucht werden, sind: Rentabilität der Aktiva, Rentabilität der Verkäufe und Eigenkapitalrendite. Der Zweck des Artikels besteht darin, das Profil der Geschäftsmodelle von Weinkellereien in Südbulgarien und ihre Auswirkungen auf die Höhe der Erträge zu untersuchen. Die Hauptmethode zur Analyse und Bewertung der Rentabilität eines Weinunternehmens ist die wissenschaftliche Abstraktion. Eine zusätzliche Methode, die verwendet wird, ist die Vergleichsmethode. Die Analyse zeigt, dass die Umsatzrendite hauptsächlich durch das gewählte Geschäftsmodell in der Branche bestimmt wird. Als die erfolgreichste und hatte einen positiven Einfluss auf die Umsatzrendite Geschäftsmodell, das es schafft, die Produktion und Vermarktung von Wein Tourismus (Weintourismus) zu kombinieren. In Bezug auf die Kapitalrendite und das Eigenkapital spielt die Wahl des Geschäftsmodells keine entscheidende Rolle.

Schlüsselwörter: Rendite, Geschäftsmodell, Wein, Tourismus, Profilierung

Résumé

La rentabilité est une catégorie économique d'une importance fondamentale pour toute organisation commerciale. Le modèle économique, à son tour, est la construction sur laquelle l'entreprise fonctionne. Il existe plusieurs types de modèles d'entreprise de caves à vin dans le pays - les caves à vin avec une production de vin prioritaire, les caves à vin avec un tourisme viticole prioritaire et les caves à vin combinant la production de vin avec une activité touristique. Les types de rentabilité étudiés comme indicateur efficace de la gestion des entreprises vinicoles sont: le rendement des actifs, la rentabilité des ventes et le rendement des capitaux propres. L'objectif de l'article est d'examiner le profil des modèles d'entreprise des caves à vin du sud de la Bulgarie et leur impact sur le niveau des rendements. La principale méthode d'analyse et d'évaluation de la rentabilité d'une entreprise vinicole est l'abstraction scientifique. Une autre méthode utilisée est la méthode comparative. L'analyse montre que le rendement des ventes est principalement déterminé par le modèle commercial choisi dans l'industrie. Le modèle d'entreprise le plus réussi et qui a eu un impact positif sur le rendement des ventes est celui qui parvient à combiner la production et la commercialisation de l'oenotourisme (tourisme du vin). En termes de rendement des actifs et des capitaux propres, le choix du modèle d'entreprise ne joue pas un rôle critique.

Mots clés: rendement, modèle d'entreprise, vin, tourisme, profilage

ntroduction

Wine production in the country has the meaning of intensive market-oriented and very important industry. Having good natural and climatic conditions of the potential of local and introduced varieties and distinct wine regions is a real prerequisite for the production of quality local wine on the international market (Borisov, 2011). In recent years there has been an increase in the supply of high-quality wines from premium varieties of the wine market (Nikolov, Borisov & Radev, 2014). This market trend leads to a highly competitive environment and puts higher demands on management. He is forced to develop, select and execute effective strategies for sales management with a view to increasing profitability from business operations. The profitability of businesses in the wine sector depends on many factors, whose genesis stems from the market situation, namely market price, the market deficit or surplus, state intervention, consumer tastes, availability of substitute products and intensity of competition (Borisov, Radev & Dimitrova, 2014).

The purpose of the article is to examine the profile of business models of wineries in South Bulgaria and their impact on level of returns.

There are numerous definitions of the essence of the term "business model". Various researchers are based on the different approaches in defining the business model.

According to Timmers (1998): "The business model can be seen in the narrow sense as the architecture of the product, service and information flows, including a description of the various business actors and their roles, and characterize the potential benefits of different business players; in broad sense, this is a description of the sources of revenue. "

Tucker (2001): "The business model presents a picture of how the company creates value for its customers who, in turn, generate revenues and profits for the company."

Amit & Zott (2001): "A business model defines the content, structure and management of transactions that are so designed as to create value through the use of business opportunities."

Seddon & Lewis (2003): "The business model is an abstract representation of certain aspects of the company's strategy. It outlines the basic information you need to know to understand how a company can successfully create value for their customers."

Afuah (2004): "The business model is a set of activities performed by the company using its resources to create exceptional value for customers."

Christensen et al., (2004): "The business model is the way in which a company formed value of their innovations. This includes: cost structure, pricing product or service, the way they accomplish the purchase (one-time deal , license, etc.), what value the company offers to its customers. "

According to Osterwalder (2004), "A business model is a conceptual tool that contains a set of elements, their relationships and shows how the company generates income. It is a description of the value of a company offered to one or several segments of customers and architecture the company and its network of partners to create value. It is still business, providing cost and use of capital in order to generate profitable and sustainable revenue streams."

According to Seddon & Lewis (2003): "The business model is an abstract representation of certain aspects of the company's strategy. It outlines the basic information you need to know to understand how a company can create a successful value for their customers." And according to Buffett, (2009): Businesses exist in three main business models -

- unique product for the market;
- unique service;
- offer of cheaper products and services accordingly low of goods that the public has a constant need.

Given interpretations of the terms "model" and "business" can identify these elements in the definition of business model: a model for organizing activities to meet certain public needs and by this way to generate cash income.

The object of our study are the wineries in Southern wine region. Wine cellar is considered an enterprise which is registered as such under the Commerce Act, keep accounts according to the Accounting Act and is registered in the National Vine and Wine Chamber in the town of Sofia, Bulgaria.

As a source for the formation of the sample used the register of the National Vine and Wine Chamber – town of Sofia, which lists all registered wineries to 31/12/2018. The resulting general assembly consists of 45 wineries on the territory of South wine region. To the sampling method using a simple random sampling, as constituent units are transmitted through irrevocable selection. The sample size is 31 wineries that operate a total of 16 644 ha, which is 2.5% of the registered areas vineyards in southern wine region. After identifying the objects of study we developed a high quallity questionnaires with questions, and organize personal interviews with owners and managers of wineries.

The interests of the survey questionnaire is designed to hold a consultation with the head managers of the wineries. The survey card itself includes several questions, divided into modules as follow:

- Module "A" includes questions about business models. Matters affecting key partners, key activities, key resources, offer value, customer relationship, customers themselves as a target

group distribution channels to customers, cost structure and revenue structure of the enterprise;

- Module "B" stated questions about the strategic management – vision, mission and goals of the wine business. Does it own vineyards or buy ready raw material for the production of wine.The technology of production and storage of wine.
- Module "C" includes questions about the legal form of the company. The structure of management levels. Are there separate marketing, financial and accounting departments?
- Module "D" examine the return of the enterprise under the current business model. How it changes and what its trends, according to respondents? Is there a subsidy and which measure of the Rural Development Program (RDP) has contribution?
- Module "E" - the goal of this module is to measure the impact of the performance of business model, business strategy and organizational form on overall performance of winery. Respondents use four point scale assessment of the following type: 0 - no effect, 1 - little influence, 2 - strongly influence 4 - very strong influence.

Pursuant to a pilot survey and its subsequent analysis highlighted several characteristic features of business models surveyed wineries in the country. Different types of business models are differentiated on the basis of the following criteria - legal status, presence of own vineyards - area and varietal composition, availability of processing capacity (production capacity), offering wine tourism.

To assess the level of return of wineries we use the following indicators (1) return on sales (2) return on assets and (3) return on equity. (Borisov& Radev, 2012)

Results

Profile of surveyed wineries in Bulgaria. The results of the survey among 31 wineries show what is the profile of the wine business in the country. The survey includes information specifying how the business model pursued business strategy and organizational form used determines the level of return in this kind of business. In the first module of the inquiry are explored key elements (factors) of business model in the second quarter of the inquiry examine the factor called “business strategy” and the third part examine the factor “organizational form”.

Of all surveyed wineries – 93% manage own vineyards. The remaining 7%, does not possess its own vineyards. The existence or non-availability of appropriate tourist service offered by the undertakings are close by percentage - 42% of the wine cellars offer tourist srvice, while 58% do not carry one. But the study itself of them express intention and readiness to enter into some kind of wine tourism. From all surveyed wineries, 32% have the status of public limited companies (PLC) and the remaining 68% are Limited liability companies (LLC) mainly.

The survey shows that wine companies which have their own land to produce grapes vary widely - from 30 to 610 acres. Conventionally we could distinguish them as "small" in size manufacturers - up to 1000 acres and "large" manufacturers - with over 1,000 acres of its own vineyards. Thus certain small wineries account are 65% of all representatives of the wine industry of the country, respectively 35% for large ones. Bottling is another aspect of the production, which is also important for wineries. Some of them have their own production lines and they bottled products. These are the larger producers with more than 100,000 liters annual capacity. These are 59% of the surveyed wineries. Others which are

oriented more towards the sale of boutique wines and implementation of tourist activities rely on outside companies for packaging and bottling wine - 41% of all examined wine cellars. (see fig. 1).

In varietal structure of vineyards dominate the introduced foreign coupled with Bulgarian traditional local grape varieties. In most cases it comes to parallel cultivation of Cabernet, Merlot, Chardonnay, Sauvignon Blanc, Traminer and Mavrud, Muscat, Dimiat, Rubin, Pamid, Keratsuda, Gamza.

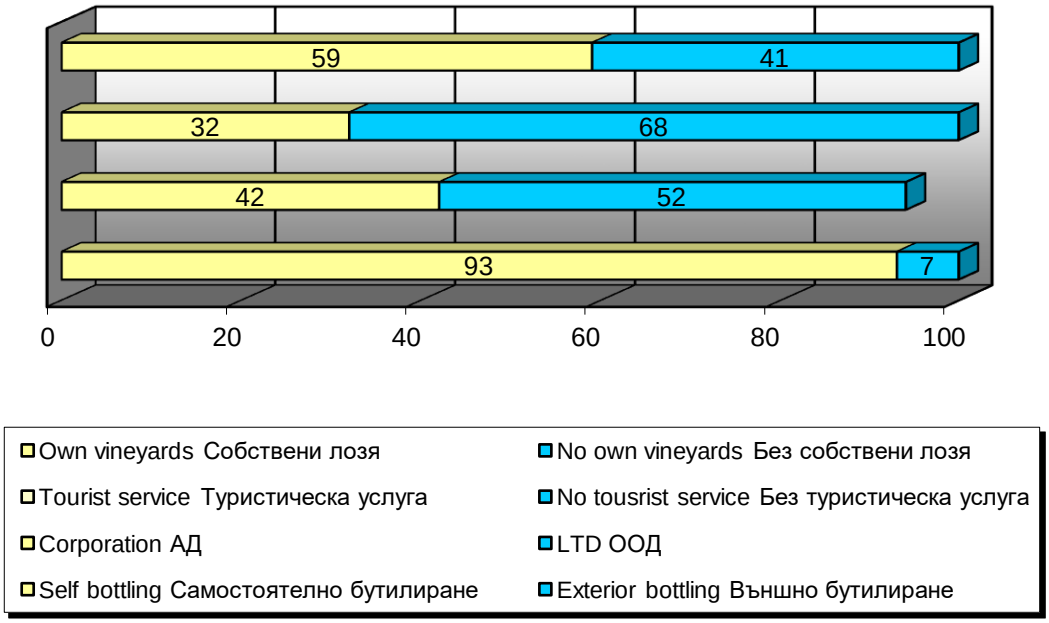

Figure 1. Profiling the wineries. Source: own survey, 2019.

Factors determining business profile of the surveyed wineries. The survey includes information specifying how the business model, the business strategy and the organizational form determines the level of return of winery in the sector. In the first module of the inquiry are explored several key elements (factors) profiling the business model; in the second quarter are examined the key factors that shaping the business strategy and the third part – factors shaping the organizational form.

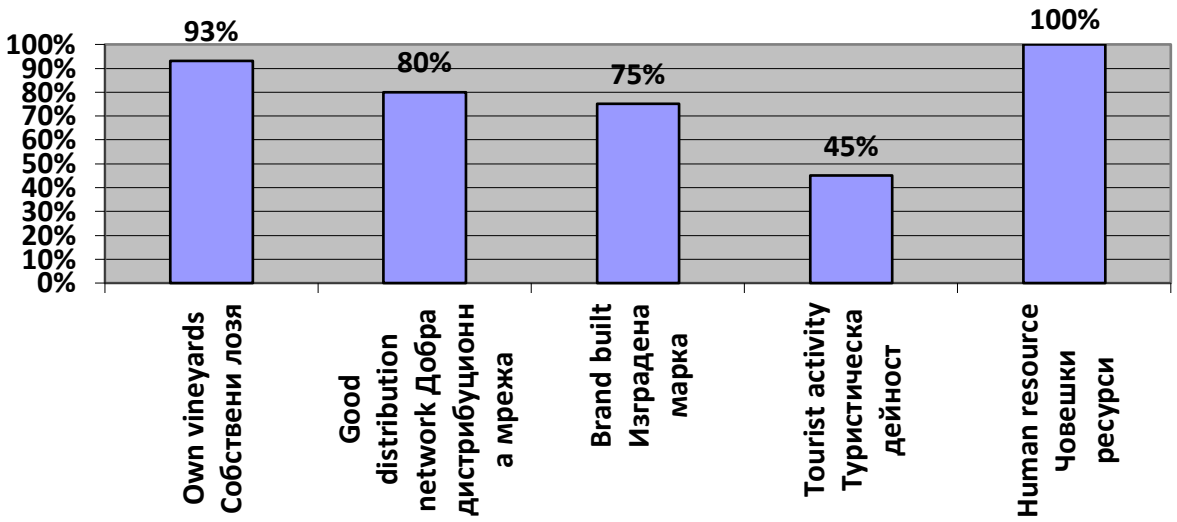

Figure 2. Key resources / activities in the business model of wineries in Bulgaria. Source: Survey, 2019. Note: The sum of the answers exceeds 100% because the participants in the survey provided more than one answer. Source: Own Survey, 2019

The first question in module A is – "Which key activities to ensure the functioning of your business model?". According to 93% of respondents key activities for their business model are very wine. 87% of surveyed enterprises indicate this is a fundamental factor to their business. From all surveyed wineries, 64% declare that establishing customer relationships as an important factor for their business activity. According to 54% of the interviewed representatives the good distribution is key factor in their business model. A 6% of all surveyed wineries declare that lobbying as an important instrument for the functioning of the business model of the winery.

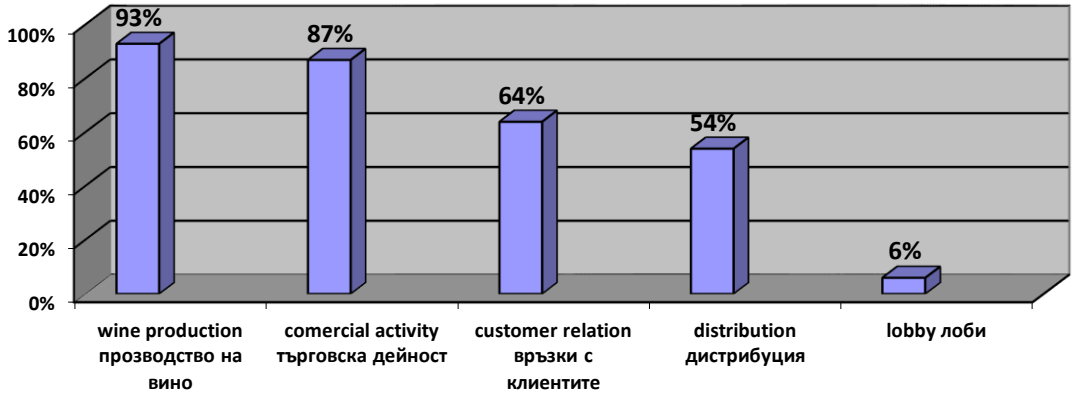

Figure 3. Graphic representation of the answer to the survey question: What key activities support your business model? Note: The sum of the answers exceeds 100% because the participants in the survey gave more than one answer. Source: Own Survey, 2019

According to module concerning "Level of return of business activities of enterprise," all respondents declare that business model has the greatest impact on level of return. From all surveyed wineries, 80% believe that the overall level of return remains stable in recent years.

The module evaluating “Business Strategy” refers to the presence or absence of tourist service in the winery. From all surveyed entities, 45% indicated that they offer tourist service to its customers; 55% declare that do not offer tourist service. However, it must be noted that 32% of wineries declare their intention in a future perspective to build tourist infrastructure and consequently to offer a tourist service.

The fourth module in the survey is evaluating "Level of return of enterprise." This indicator provides an answer how the company is doing in current market conditions, what is the effect of its activities. The first question in this module is “How is changing the level of return in your company in recent years? The largest share of respondents declare “positively” - 61% believe that the level of return is increased in recent years. According to 30% of respondents the rate of return is generally retained in the enterprise, 9% are participants in the inquiry who believe that rate of return decreased in recent years. (see fig. 4)

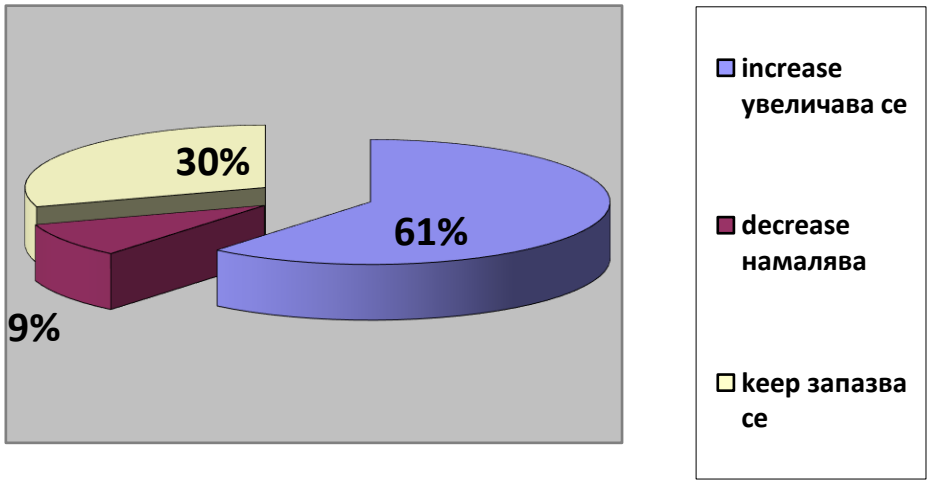

Figure 4. Graphic representation of the answer to the survey question: How has the level of return in your company changed in recent years? Source: Own Survey, 2019.

It is essential that the question "Which of the following factors has the greatest impact on rate of return" Participants are given answers by the names of previous modules, ie "Business Model", "Business Strategy" and "organizational form" and others. The most important factor in the level of return, according to respondents with 55% is the business strategy of the winery. 48% of respondents considered the business model for the second most important factor in rate of return. About 29% of respondents declare that organizational form also determines the rate of return. A 6% of respondents reported that the market situation as a component of cost of sales and hence rate of return.

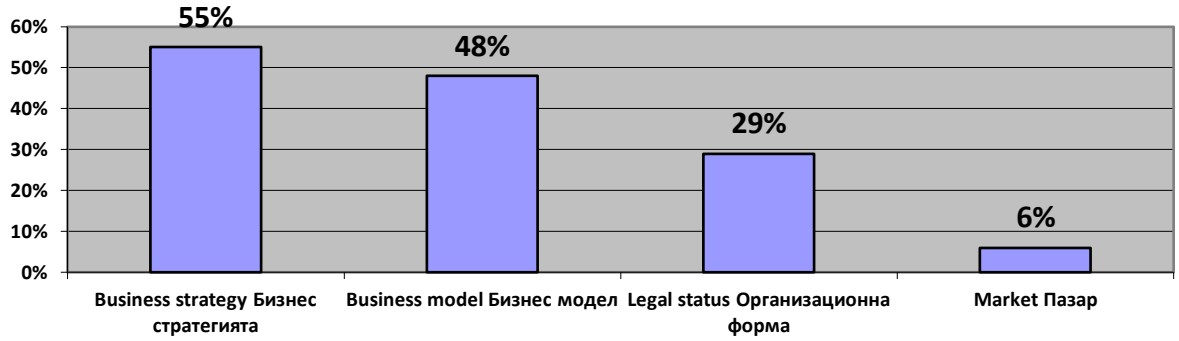

Figure 5. Graphic representation of the answer to the survey question: Which of the following factors has the greatest impact on return? Note: The sum of the answers exceeds 100% because the participants in the survey gave more than one answer. Source: Own Survey, 2019

Another question from the module is: "Was your company beneficiary of one of the national programs for support?" This is a very relevant issue for the agricultural enterprise as is the wine, since some businesses are even constructed with the help of external funding from the structural funds of the European Union. Other enterprises use this type of assistance as the effect of financial leverage to raise capital, productivity and rate of return. At this point 76% of the representatives of wine companies said they were not beneficiaries of any of the programs for national funding. While 24% indicated that they participated in the distribution of national funds.

Logical is the last question, which originates from the previous one, namely – "If your company was the beneficiary - in which measure/program?" . 45% obtain funding through Measure 121; 25% through Measure 123 of the Program for Rural Development 2007-2013; 20% received funding from SAPARD and 10% received funding from specialized wine-growing program called "Restructuring and conversion of vineyards "of the EU. (see fig. 6)

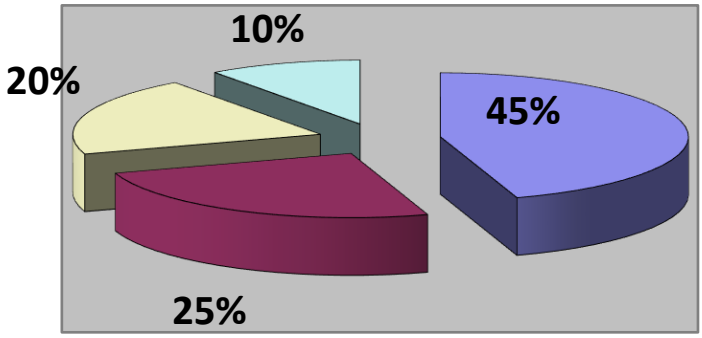

Figure 6. Graphic presentation of the answer to the questionnaire: Which measure / program was your company a beneficiary of? Source: Own Survey, 2019

The last module is called "Identifying the impact of factors on the rate of return of the business." Its aim a more detailed specification of the effects mentioned in the previous modules, factors influencing the development of rate of return on equity, return on assets and sales of the winery. Participants indicate that there is strength revevance between the listed indicator and rate of return of enterprise. The survey shows that business model significantly influences the return on sales. The choosen business strategy also have a strong impact on return on assets (90% of all respondents declare that this factor is critical). The legal status/organizational form have strongest influence on the return on equity (70% declare it).

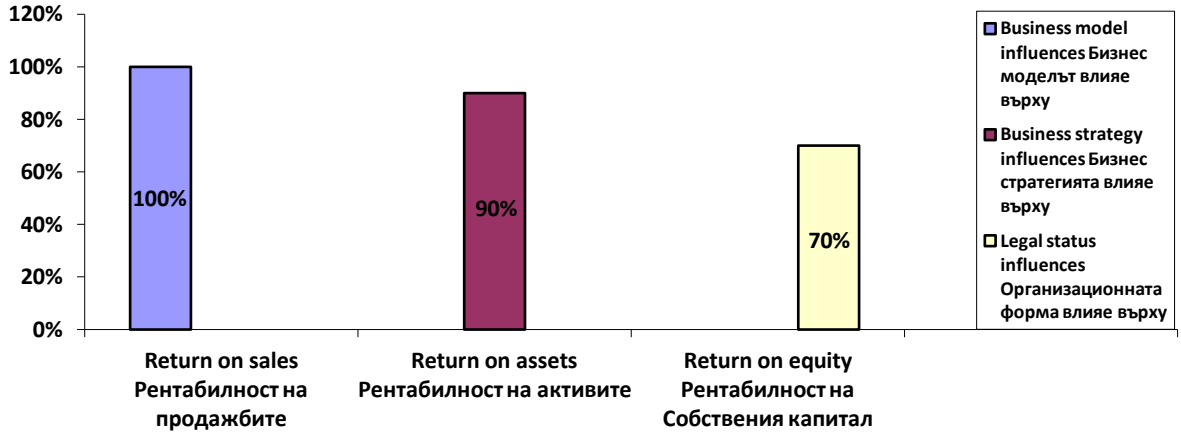

Figure 7. Determining the impact of the factors on the profitability of the business. Source: Survey, 2019. Note: The sum of the answers exceeds 100% because the participants in the survey provided more than one answer. Source: Own Survey, 2019

Conclusion

The analysis shows that the return of sales is determined mostly by the chosen business model in the industry. As the most successful and had a positive impact on the return of sales business model that manages to combine the production and marketing of wine tourism (wine tourism). In terms of return on assets and equity, the choice of business model does not play a critical role.

Choice of organizational form does not prove a critical factor in managing the return on equity. Because the most important factor is the amount of production as joint stock companies associated with big capital and limited liability companies with small businesses. Larger producers can benefit economies of scale and achieve lower production costs, which in turn gives them a competitive advantage over other businesses. Therefore, production of joint-stock companies may be called conventional and small family producers rather boutique. Small wineries also rely on wine tourism.

Business strategy has the greatest importance in the formation of return on assets and the profitability of sales and equity impact is less. Following the business strategy that approaches inherently to the diversification of activities is a major factor that makes it possible to increase or stabilize profitability of assets in the sector.

The analyzes based on the survey on the economic situation of the wine cellars in the country give a clear idea on the local market in which they operate - it is highly fragmented. It consists of many small and medium enterprises sector. Some of them carry primary production activities, another part developed

in parallel with the production of wine and wine tourism, and one of the producers of wine declare their intention to introduce tourist service in its range. The presence and absence of tourist product is a basic difference between wineries, as this helps to diversify risk and change the business model of the company. The business model has fundamental to the profitability of each business matter. Profitability is the main "ingredient" of efficiency

References

Afuah, C. (2004). Business models: strategic management approach. Classic style, Sofia, 2003

Amit, D., M. Zott (2001). Design of business model and presentation of entrepreneurial companies. Classic style, Sofia, 2001

Borisov, P. (2011). State of competitiveness of the wine sector and guidance and opportunities for improvement. Economics and management of agriculture, Sofia, vol.5 / 2011, 66-77 p.

Borisov, P., T. Radev. (2012). Evaluation of the driving factors for the economic profitability of wineries in southern Bulgaria. Agricultural Sciences, Plovdiv, Issue 9/2012, pp. 49-52.

Borisov, P., T. Radev, D. Dimitrova (2014). Comparative advantages of EU Member States in Trade with wine. Economics and Management of Agriculture pc. 4/2014, Sofia, pp. 59-65.

Buffett & Clark (2009): Warren Buffett's management secrets, p. 6-9

Christensen et al., (2004). Seeing What's Next: Using Theories of Innovation to Predict Industry Change Hardcover - September 21, 2004

Nikolov, P. Borisov, T. Radev. (2014) Integrated Landscape Analysis: Consumers' Preferences Aproach for Defining the Competitive Landscape Composition. A Case of Wine Tourism in Pazardjik District, Bulgaria. Bulgarian Journal of Agricultural Science, 20 (No 4) 2014, pp 761-766.

Osterwalder, A. (2004) .The Business Model Ontology - a Proposition in a Design Science Approach, dissertation, published on the official website of the University of Lausanne, s.s.11-23

Seddon, A., J. Lewis (2003): Strategy and business models. Classic style, Sofia, 2003.

Timmers, V (1998). Business models for electronic markets. First edition. McGrill books, London, 210 p.

Tucker, P (2001). Sedimentary petrology. Classic style, Sofia, 2001.

CONTRIBUTION OF SUBSIDIES TO THE LEVEL OF INCOME OF SMALL FARMS IN BULGARIA

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Abstract

The article examines the relationship between subsidies paid and the profitability achieved on small agricultural holdings in Bulgaria. The regression analysis examines the relationship between subsidies as factorial values and indicators - gross margin, net operating income and profitability of subsidies as outputs. It is determined what is the impact of the subsidies on the yield and what happens in case of a threshold increase in their size, regardless of the localization, intensification and specialization of the small farms. The results of the regression analysis show that subsidies lead to a threshold increase in farm incomes and increase the quality of products.

Keywords: subsidies, gross margin, efficiency of subsidies, small farms

Abstrakt

Der Artikel untersucht die Beziehung zwischen den gezahlten Subventionen und der erzielten Rentabilität kleiner landwirtschaftlicher Betriebe in Bulgarien. Die Regressionsanalyse untersucht die Beziehung zwischen Subventionen als faktorielle Werte und Indikatoren - Bruttomarge, Nettobetriebseinkommen und Rentabilität der Subventionen als Output. Es wird bestimmt, wie sich die Subventionen auf den Ertrag auswirken und was im Falle einer Schwellenerhöhung ihrer Größe geschieht, unabhängig von der Lokalisierung, Intensivierung und Spezialisierung der Kleinbetriebe. Die Ergebnisse der Regressionsanalyse zeigen, dass die Subventionen zu einem Schwellenanstieg der landwirtschaftlichen Einkommen führen und die Qualität der Produkte erhöhen.

Stichworte: Subventionen, Bruttomarge, Effizienz der Subventionen, Kleinbetriebe

Résumé

L'article examine la relation entre les subventions versées et la rentabilité atteinte dans les petites exploitations agricoles en Bulgarie. L'analyse de régression examine la relation entre les subventions en tant que valeurs factorielles et les indicateurs - marge brute, revenu net d'exploitation et rentabilité des subventions en tant que produits. Il est déterminé quel est l'impact des subventions sur le rendement et ce qui se passe en cas d'augmentation du seuil de leur taille, indépendamment de la localisation, de l'intensification et de la spécialisation des petites exploitations. Les résultats de l'analyse de régression montrent que les subventions entraînent une augmentation du seuil des revenus agricoles et augmentent la qualité des produits.

Mots clés: subventions, marge brute, efficacité des subventions, petites exploitations

ntroduction

I A characteristic feature of the structure of agricultural holdings in Bulgaria is its dual nature. This nature is expressed in the presence of a large number of small holdings cultivating a small part of the utilized agricultural area and a small number of large holdings cultivating a significant part of the utilized agricultural area (Borisov, Radev and Nikolov, 2019). Small farms are important in terms of employment in rural areas and they play the role of social buffer in times of economic crisis (Nikolov, Borisov, Radev, 2014). Therefore, subsidizing these structures enables the rural economy to stabilize, generate sustainable employment and modernize the living environment in these areas. On the other hand, there are a small number of large holdings that can economize on scale, implement innovative products, and transfer knowledge from scientific organizations to practice. These farms are increasingly approaching the essence of industrial production, with all its advantages and disadvantages. Undoubtedly, these are the structures that give a modern look to Bulgarian agriculture (Borisov, Kolaj, Yancheva, Yancheva, 2019). Despite the efforts made to destroy the status quo, namely to avoid farm polarizations by size, there is still no group of medium-sized farms, whose idea is to play the active role of sustainable and economically viable structures in rural areas, guaranteeing the reduction of the flow from the rural to urban areas and abroad. One of the instruments for regulating the polarization process is payments designed to help entrepreneurs in agriculture.

There are a number of studies that analyze and evaluate the effects of agricultural subsidies, starting with their size, specialization, regional location and market orientation (Koteva,2009); (Koteva et al., 2009); (Naceva, 2010); (Nikolov, Radev, Borisov, 2013). As a result of these studies, information is obtained and knowledge is gained regarding the development of which farms are strongly influenced by the subsidies received. Very often this information is used for political purposes and leads to the opposition of small and large farmers, grain and vegetable producers, grape and wine producers, producers and traders in the sector (Kolaj, Osmani, Borisov, Skunca, 2019). The main dilemma of government intervention is the following: Whether to sacrifice the social buffer whose role small farms play at the expense of large industrial structures, which are the most likely to innovate in the sector and determine its competitiveness? Undoubtedly, the economic analysis of this problem is complex and this is proved by the abundance of publications on this topic in our country (Andonov, 2012); (Bachev, 2012); (Blazeva, 2013); (Jovcevska, 2015).

The idea of this publication is to give an objective assessment of the contribution of subsidies to the formation of income of small agricultural holdings. Using the method of abstraction to we want to look for the direct effects of subsidizing the activities of small farms. In this context the purpose of the study is to evaluate, through statistical analysis, the contribution of subsidies to the level of income of small agricultural holdings, regardless of their location, specialization and rate of intensification.

A systematic approach is used in assessing the contribution of farm subsidies. The indicators used are grouped into two categories - (1) indicators evaluating the input of the system, namely the level of subsidization of production on the small farm and (2) indicators evaluating the output of the system - this is income of the farm. The first group of indicators includes the following: amount of SAPS (single area payment scheme) payments received, agri-environment payments, Natura 2000 payments, payments to disadvantaged areas and investment subsidies. The second set of indicators includes: (1) gross margin

(Nikolov, et al., 2012); (2) net operating income (Bashev, 2009) and (3) efficiency of subsidies paid (ratio between subsidies received and gross output) (Meadows, 1999).

Regression analysis seeks answers to the following research questions:

What is the impact of subsidies on the level of income in small farms?

What kind of relationship exist between the subsidies received and income in the small farms?

Does increasing subsidies lead to higher income in the small farms?

What is the sensitivity of farm incomes to changes in subsidy levels?

In the regression model, the amount of subsidies received is defined as a factorial indicator (driver of income). The following three indicators are used as performance indicators in the model - gross margin, net income and profitability of paid subsidies (see scheme 1).

Scheme 1. Regression model. Source: Own survey, 2019.

Type of relevance	**Driver**	**Performance indicator (Result)**
Relevance between subsidies and gross margin	Subsidies received (BGN)	Gross Margin (BGN)
Relevance between subsidies and net income	Subsidies received (BGN)	Net operating income (BGN)
Relevance between subsidies and efficiency of subsidies	Subsidies received (BGN)	Efficiency of subsidies paid (Ratio)

FADN (Farm accounting data network) data are used to construct the regression model and analyze it. According to the FADN newsletter (269 / 02.2016) the published data are average results. A special weighing system is used to calculate the results. It is based on the principle of "free expansion": the weight calculated for a holding applies to all stratum farms (extrapolation factor). The individual weight is equal to the ratio between the number of holdings on the same stratum (area x type of specialization x economic size) in the observation field and in the sample. The FADN sample for 2013 includes 1950 small agricultural holdings, selected on the basis of their specialization. The survey covers a 6-year period from 2009 to 2013.

Results

Table 1 shows the results of the regression analysis of the data. The model shows that in forming the gross margin and the net income, subsidies have a significant impact. This is evidenced by the correlation coefficient, which, in the connection of subsidies paid and the gross margin achieved, is 0.8307 (see Table 1). In the relation of subsidies to income, the correlation coefficient is even higher, namely 0.9703. The regression analysis proves the expected dependence that with the increase of subsidies in one farm, its gross margin and net income increase proportionally. The regression coefficients show the step by which the gross margin and the net income increase with with 1.24 BGN in every 1 BGN paid subsidy. The results of the analysis of the sensitivity of net income to changes in subsidized payments show that net income increased with 1.26 BGN in every 1 BGN subsidy paid to the small farm.

In general, the rate of change in gross margin is greater than that of net income. This is because the gross margin is directly influenced by the amount of subsidies received, while in the case of net

income, the subsidies have a relatively indirect impact. This indirect influence is determined by the fact that, with a threshold increase in subsidies on the holding, the farmer is inclined to increase production costs following the good production practices. The main impetus for the farmer's behavior is that by ensuring higher productivity of the production resources invested in the farm, he can achieve a higher gross output. More gross production on the farm also means more opportunity for sales and higher revenue generation. In this context, it is interesting to measure what the structure of a farm's income is, to what extent subsidies are a structural determinant for them. According to the calculations made in 2013, subsidy revenues accounted for 33.1% of the total income that farms generate during the business year (see Figure 1).

Over the years, with increasing subsidies, farmers have been able to increase their sales revenue and thus reduce the relative share of subsidies in the revenue generated. This can be interpreted in two ways. First, the subsidies have a multiplier effect, namely more output and more equal sales. Secondly, more subsidies coming to the farm lead to higher levels of production costs. Which of the two statements is true can be verified by analyzing dynamically what happens to the gross margin. Using this indicator, it is possible to evaluate how well farmers manage their sales revenue and direct costs on the farm.

Figure 2 illustrates the relationship between subsidies and farm gross margins achieved. It can be seen that the majority of the studied small farms are grouped into the following interval values of the studied indicators - from 0 to 50 000 BGN received subsidies and from 0 to 200 000 BGN achieved gross margin. This means that subsidies received on the farm result in higher sales revenues.

Table 1. Statistical evaluation of the impact of subsidies on gross margin, net income and level of income of small farms. Source: Own calculation based on collected data form FADN - Bulgaria

Statistical indicators	**Indicators of results**		
	Gross margin BGN	Net income BGN	Efficiency of subsidies (Ratio)
Multiple R	0,8307	0,9703	0,1670
R square	0,6900	0,9415	0,0279
Adjusted R Square	0,6797	0,9399	-0,0045
Degree of dependence	Significant	Significant	Very weak
Type of dependence	Positive	Positive	Positive
Regression coefficient b0	6843,66	-1753.48	3.23
Regression coefficient b1	2,2423	1,2596	1.9550
Statistical significance	There is	There is	There is no

Figure 1. Contribution of subsidies to revenues and net income /2009-2013/. Source: Own calculation based on collected data form FADN - Bulgaria

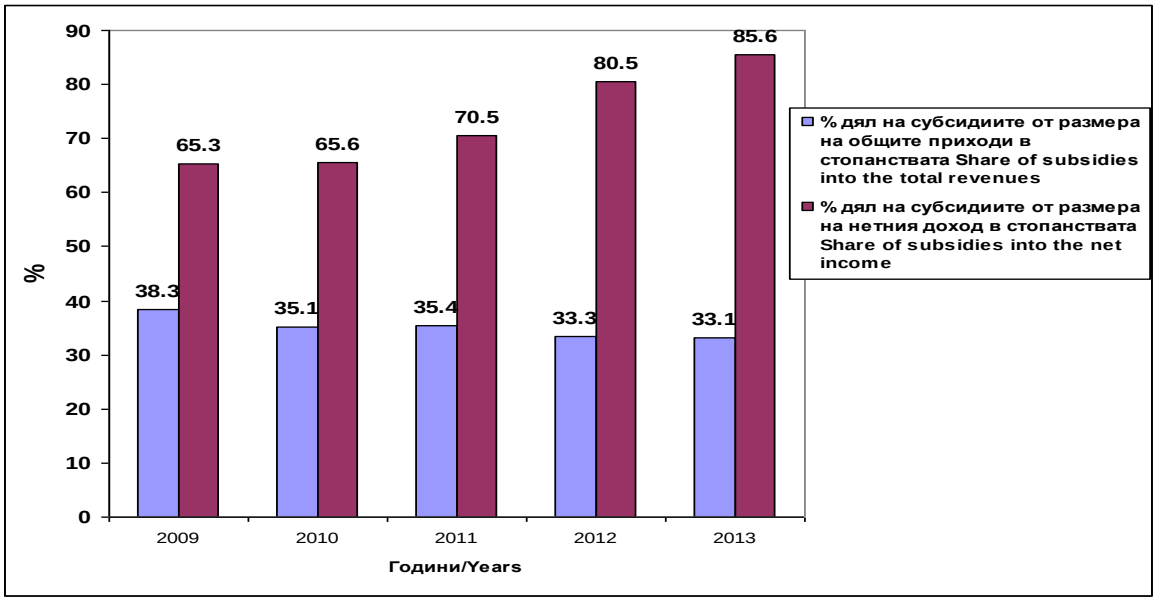


Figure 2. Relevance between subsidies and gross margin. Source: Own calculation based on collected data form FADN - Bulgaria

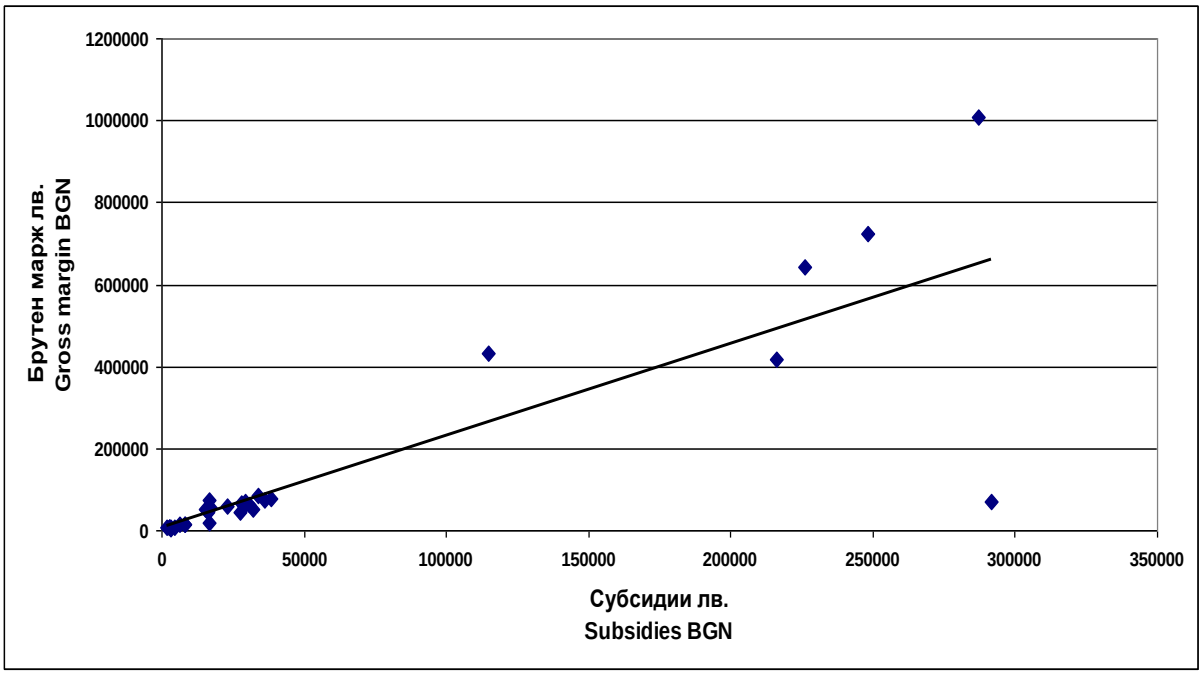


Figure 3. Relevance between subsidies and net income. Source: Own calculation based on collected data form FADN - Bulgaria

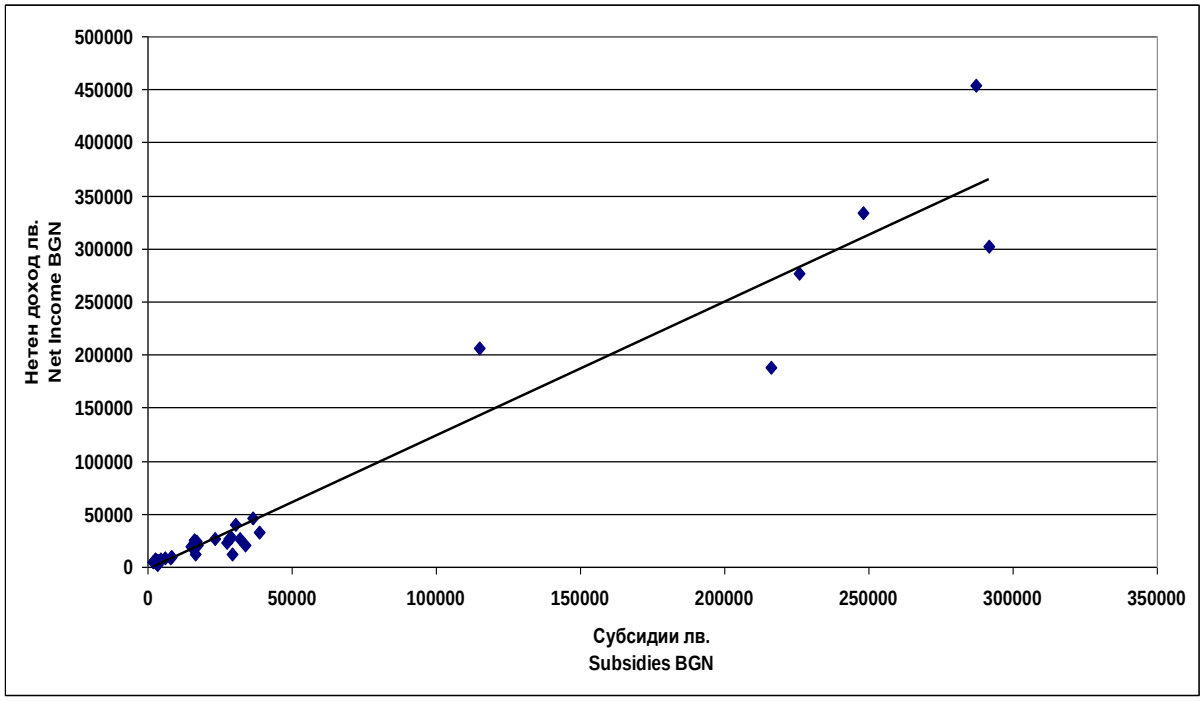
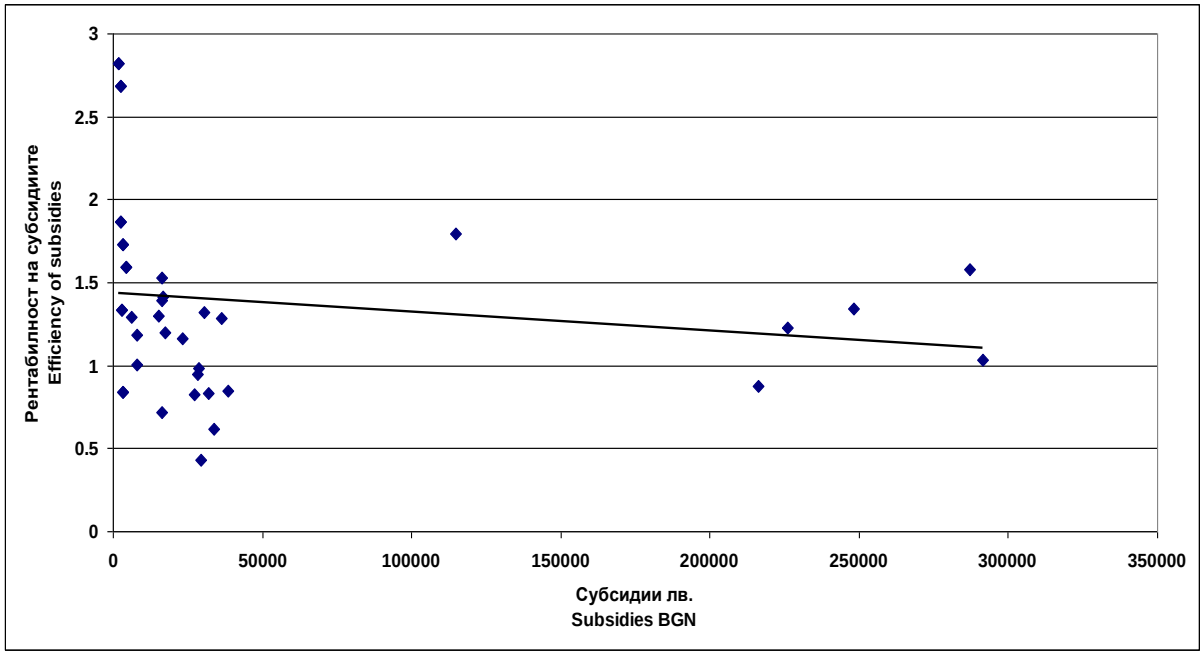


Figure 3 shows the relationship between farm subsidies received and net income achieved in small farms. The majority of the studied objects are grouped into the following interval values of the studied indicators: from 0 to 50 000 BGN subsidies and from 0 to 50 000 BGN net income. The graphical expression of the correlation between the studied factors clearly shows that there is a strong correlation. Working with the overall values of the surveyed indicators, it can be seen that the amount of subsidies is almost equal to the net income of most of the small farms surveyed. The regression coefficient in the model shows that subsidies have a positive impact on net income. Over the years, the share of subsidies in farm net income has increased to 85.6%, which is close to a 20% increase over the last 5 years.

The subsidy efficiency indicator can analyze and evaluate the effects of subsidies on level of income in small farms. The study of this dependence in the regression model shows that there is no statistical significance of the obtained results. The correlation coefficient is 0.1670 and shows that the relationship is very weak and positive. The regression coefficient b1 indicates that when subsidies increase by 1 BGN, their level of income increases by 1.96 points (see Table 1). The graphical representation of the correlation between the studied indicators is shown in Figure 4. It is clear to see the wide variation of the correlation values, which determines the low value of the correlation coefficient. The results of the statistical analysis show that other factors, other than the subsidies received on farms determine the efficiency of the subsidies. The direction of influence of these factors is erratic and random.

Figure 4. Relevance between subsidies and efficiency of subsidies. Source: Own calculation based on collected data form FADN - Bulgaria



Conclusion

- The direct effect of the subsidies paid is that they lead to a threshold increase in the profitability of the small farms. Through the use of more and more subsidies, farms raise the quality of agricultural products by investing in the pursuit of good production practices.
- The subsidies paid have a multiplier effect on the activities of the small farms, namely they lead to an increase in the gross production, the income from the activity and the amount of investments for the construction of production facilities.
- Subsidies lead to an increase in farm incomes during the business year, which is the reason for the increase in the volume of gross production. Most of the gross production produced on farms also leads to higher sales volumes, which also results in higher operating income. Thanks to subsidies, small farms are becoming more market-oriented and adaptable to consumer requirements.
- Subsidies are "addictive" and small farms are becoming more and more dependent on them. This is a sign that it will be very difficult to implement economically sound subsidy regulation policies in the various agricultural sectors. Changing the structure of farms by regulating subsidizing payments will exacerbate the confrontation between different stakeholders in the sector.

References

Andonov, S. (2012). Arguments "For" and "Against" a gifted intervention in the agrarian sector. Agricultural Economics and Management, Sofia, 4/2012. p. 3 - 11

Bachev, H. (2012). Assessment of the effects of CAP adaptation on agricultural holdings. Agricultural Economics and Management, Sofia, 1/2012. p. 14 - 30

Blazeva, V. (2016). A New Vision for a "Reformed" European Agriculture and Its Influence on Bulgaria's Agrarian Policy. Agricultural Economics and Management, Sofia, 4/2013. p. 3 - 14

Borisov, P., R. Kolaj, S. Yancheva, C. Yancheva (2019). Influence of common agriculture policy on Bulgarian agriculture. Bulgarian Journal of Agricultural Science, 2019 vol. 25 (No.3), p. 439-447

Borisov, P., T. Radev, D. Nikolov (2019). Young Farmers and New Entrants in Bulgarian Agriculture - Profiling their Challenges and Needs. Agricultural Economics and Management, Sofia 2/2019, p. 60-71.

FADN - Bulgaria, Newsletter - #269 / 02.2016

Jovcevska, P. (2015). Vulnerable Sectors in the Bulgarian Village: Effect of the CAP 2007-2013. Agricultural Economics and Management, Sofia, 3/2015. p. 3 - 12

Kolaj, R., M. Osmani, P. Borisov, D. Skunca (2019). Empowering partnering links as opportunities for development of the regions: can PPPs work in agriculture? Bulgarian Journal of Agricultural Science, vol. 25 (No. 3) 2019, 468–473

Koteva, N. (2009). Parvonal assessment of the impact of the EC GSP on the development of germinating cultures. Agricultural Economics and Management, Sofia, 2/2009. p. 54 - 17

Koteva, N., H. Bachev, M. Risina, M. Mladenova. (2009). Assessment of the impact of the EC CAP on agricultural holdings. Agricultural Economics and Management, 3/2009. p. 16 - 25

Meadows, D, (1999). Indicators and Information for Sustainable Development. Hartland Four Corners, Vermont: Sustainability Instituty.

Naceva, Z. (2010). Funded by agricultural holdings in the context of the existence of EC agricultural policy. Dissertation abstract for the doctorate degree. Sofia, 2010.

Nikolov D., H. Bashev, Iv. Janakieva, T. Radev (2012). Farm management. A guide to a successful agriculture business. Publishing Group Bulgaria, Sofia. s. 248.

Nikolov, D., P. Borisov, T. Radev (2014). Challenges and perspectives of Bulgarian small farms. “Achievements and challenges in the food sector and rural areas during the 10 years after EU Enlargement”, Warsaw, Poland, №123.1, pp. 69-84.

Nikolov, D., T. Radev, P. Borisov. (2013). CAP contribution on landscape management in Bulgaria. Agroeconomia Croatica 3:2013 (1) 46-52.

Stoeva, T., D. Haytova. (2015). Possibilities and tendencies for the development of vegetable production in rural areas. Agricultural Economics and Management, Sofia, 2/2015. p. 22 – 32

MORTALITY IN EUROPE - A CHRONOLOGY OF EPIDEMICS AND PANDEMICS CROSSED THE CONTINENT

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"One person's death is a tragedy,
the death of millions is now a statistic"

Abstract

Death is a concomitant and inevitable, physiological process of the human body, in which the life cycle is interrupted. A destined fact for both the individual and human civilization. Death as a concept is a major component in geodemography (demographics) and statistics, used to analyze the population of the deceased over a period of time. The material presented here analyzes the underlying factors that have the greatest impact on the mortality process. It is tracked in chronological direction, the time intervals during which the epidemics and pandemics of the Old Continent occur, as well as statistics on mortality in the last decade of the XXI century.

Keywords: Europe, death, epidemic and pandemic.

Abstrakt

Der Tod ist ein begleitender und unvermeidlicher, physiologischer Prozess des menschlichen Körpers, bei dem der Lebenszyklus unterbrochen wird. Eine Tatsache, die sowohl für das Individuum als auch für die menschliche Zivilisation vorbestimmt ist. Das Konzept des Todes ist ein wichtiger Bestandteil der Geodemographie (Demographie) und der Statistik, mit deren Hilfe die Bevölkerung der Verstorbenen über einen bestimmten Zeitraum analysiert wird. Das hier vorgestellte Material analysiert die zugrunde liegenden Faktoren, die den grössten Einfluss auf den Sterblichkeitsprozess haben. Es wird in chronologischer Richtung verfolgt, die Zeitintervalle, in denen die Epidemien und Pandemien des Alten Kontinents auftreten, sowie Statistiken zur Sterblichkeit im letzten Jahrzehnt des XXI.

Schlüsselwörter: Europa, Tod, Epidemie und Pandemie.

Résumé

La mort est un processus physiologique concomitant et inévitable du corps humain, dans lequel le cycle de vie est interrompu. C'est un fait destiné à la fois à l'individu et à la civilisation humaine. La mort en tant que concept est une composante majeure de la géodémographie (démographie) et des statistiques, utilisées pour analyser la population des personnes décédées sur une certaine période. Le matériel présenté ici analyse les facteurs sous-jacents qui ont le plus grand impact sur le processus de mortalité. Il est suivi dans le sens chronologique, les intervalles de temps pendant lesquels les épidémies et les pandémies du Vieux Continent se produisent, ainsi que les statistiques sur la mortalité dans la dernière décennie du XXIe siècle.

Mots-clés: Europe, décès, épidémie et pandémie.

ntroduction

The term death (deceased) can be used to refer to a specific person or the same population regionally or globally. On the other hand, through this process, there is a change of generations. The registration of death takes place at the moment of its occurrence (this process dates from the Ancient period, keeping track of the death toll). The purpose of the publication is to track the epidemics and pandemics across continent Europe, as well as the mortality rates in recent years, 2014-2018, by comparing certain countries within and outside the EU. Tasks that are set and resolved in the material include analysis of epidemics, pandemics and the physiological process - death in Europe and the world. Factors that are directly related to the mortality process and their impact on the human population are analyzed. In the field of geodemography, in particular the movement of the human population, some of the scientific potential is working (McEvedy, 1978, Chopeva, 2011, Slaveicov, 2012, Marinov, 2018, Kolaj, Borisov et al., 2018, Petrov, 2019). The development also includes viruses that have emerged over the last twenty years, as well as the newly emergent pandemic agent Covid-19 (Wilkinson and Dahly, 2020; Kohlmeier, et al., 2020). The historical method was used to trace the chronology of past processes over different historical time periods. The statistical method is applied for the collection and processing of information related to population and mortality as an ongoing process. The comparative method is used to compare the individual components and indicators related to the human population. The mortality rate is used to calculate the death toll. The mortality rate (M) shows the number of deaths per 1000 people in the average annual population. It is calculated (in terms of) as the ratio of the number of deaths (PD) during the year and the average annual population (SP) in the same year, or M = PD / SP x 1 000.

Mortality and fertility are related processes and although they have different dimensions and are understood in different parts of the world, through the historical stages of human civilization. One of the biggest causes of death from Antiquity to the beginning of the XX century in Europe is the "Plague Pandemics", spread by three types of plague bacteria[1]. As cyclicals, they have intervals of 6 to 12 years, or every one or two centuries. Very little is known about pandemics and their effects during the Ancient period, and the authors of the time wrote too little about these problems for reasons unknown to us. The term epidemic is derived from ancient Greek tradition (επι, epi „over "and δεμος, demos „the people"). These are new cases of a particular disease, in a given population, over a period of time, significantly exceeding the specified number of infected/sick in a short period of time and covering large spaces. The epidemic applies to local areas in a particular country, but if the infection goes beyond the borders, it is already defined as a pandemic.

One of the first reports of a plague epidemic dates from 431-427 BC, when hundreds of thousands of plague people died in Athens. The so-called "Thucydides Plague" lasted two years and began to spread in 431 BC, from the war in the Peloponnese. In 427, the disease broke out and continued until the end of the year. In fact, it is an epidemic of several mystical diseases. Medical anthropology analysis showed that it was a combination of typhoid fever and measles. Ironically, the highest mortality rate is observed among

[1] Plague is a contagious epidemic disease caused by the bacterium Yersinia pestis the endemic outbreak of plague is Central Asia. There it is distributed among Polish rodents. From time to time, her strains manage to transmit to humans and in the past have caused epidemics, https://bg.wikipedia.org/wiki.

doctors, as the disease has proven to be extremely contagious. According to the description of Thucydides (455 BC-397 BC), made in his Chronicle of the Peloponnesian War, "… the disease seemed to have started south of Egypt in Ethiopia, from there it moved to Egypt and Libya, after spreading into the greater territory of the Persian Empire and suddenly invading Athens".

The first officially registered plague pandemic on the Old Continent was the Justinian Plague in the period 541-542, during the reign of Emperor Justinian I the Great (482-565). Its manifestation is in small waves, manifesting itself over the next two centuries 541-750. The plague outbreak is thought to have originated in 540-541 in Ethiopia or Egypt and through commercial maritime routes across the Mediterranean, the plague bacterium (Yersinia pestis) arrives in Constantinople. This is where the spread of the pandemic begins, covering the entire Balkan Peninsula, the countries of Western and Southern Europe, Britain, the Scandinavian Peninsula reaching the Urals. The countries of North Africa, the Middle and Middle East are also affected by the booming pandemic. The pandemic peaked in 544, when in Constantinople, the deaths per day reached from 5 000 to 10 000. Details of this plague reach us thanks to Procopius of Caesarea (500-565), a noted Roman scientist from the family of Procopius. According to Historian Demographic Specialist George Russell, Europe loses from the pandemic between, 541-700, 50-60% of its population over 25 million souls. Approximately 40% of Constantinople's population die as a result of the plague pandemic. The plague victims in North Africa, the Middle and Middle East are estimated to reach 100 million by medieval authors souls.

The population of Europe in the period X-XVI centuries reaches 75 million souls. There is a rapid recovery of the human population after the first plague wave. The Black Death, the most devastating and devastating pandemic most likely caused by bubonic plague[2]. It´s distribution begins in the town of Kafa in the Crimean Peninsula in 1345-1347. Passed through Europe in 1346-1347, covers Asia Minor and some islands of the Mediterranean. In 1348 the epidemic permanently entered the continent, covering the southern and eastern parts. In 1349 it reached the central parts of Britain and Western Europe. The following year, the 1350 pandemic also covered the central parts of Europe, reaching the Scandinavian Peninsula. In the period 1350-1351, the whole territory of Europe and two thirds of the Russian Empire was affected by the epidemic. The causes are poverty and poor human hygiene, over the centuries black plague has spread to the plague. The estimated death toll from the pandemic in the period 1346-1351 in Europe is 30 million people or 40% of the population. The death toll is significantly higher, covering territories of other continents.

In presenting processes related to statistics affecting the period before the XIX century, we should hypothetically accept the digital expression. The church and the state administration, on a tax-collecting basis, maintained population records, but the accuracy was hardly respected.

In the following centuries, plague epidemics continued to rule Europe, but their power was not as devastating as in the Middle Ages. There have been plague epidemics throughout the seventeenth century, occurring in 1641 in the of city Serres and spanning the Balkans and countries of southern, western and northern Europe. In 1665-1666, the island of Britain, and in particular London, was plagued

[2] In it, the plague bacterium overcomes the skin's protection and reaches the next "defensive line" of the organ-lymph nodes. There it multiplies and inflames them; they swell and coalesce into distinctive tambourine. Without treatment mortality from bubonic plague is about 90%, this is the reason why it was mentioned as the terrible plague of legends - after it 10% survived, https://bg.wikipedia.org/wiki/

by a plague epidemic, demographers and historians cited as the cause - poor human hygiene and the spread of the disease again to the rats.

The next decade of the century was again plagued by a plague epidemic spreading from the Balkan Peninsula to Britain. Towards the end of the century, the war of 1683-1699, between the Ottoman Empire and the Holy League, unleashed another plague epidemic. The socio-economic and political changes that have taken place in the Old Continent are changing the way people live. More attention is being paid to hygiene, food, medicine, development, cultural values come to the fore.

After the XVII century, there were no outbreaks of plague in Europe. Nonetheless, mortality takes its toll from casualties caused by the ongoing military conflicts (the Crimean War, the Balkan Wars, the FWW, the WWII, terrorist activities, military conflicts in the former Yugoslavia, the war in Ukraine) on the continent.

The objective factors at the beginning of the XXI century had a direct impact on the death toll at regional and global levels. Of these, the biological factor is of the greatest weight in the first twenty years, with various types of viruses appearing on its face, which significantly change the geodemographic picture. The virus is a microscopic pathogen that infects the cell in the living organism. The virus can multiply and develop by subjugating the cells of the host, because they are not themselves made of cells and cannot reproduce themselves. A characteristic feature of these is the very small size of 15-350 nm., the Visible only under an electron microscope. Viruses cannot reproduce in artificial nutrient media, but only in living cells. They are strict intracellular parasites that utilize the synthesis systems and the energy of the cell in its reproduction. Viral nucleic acid carries information that can program a host cell to synthesize virus-specific macromolecules.[3] Virus flu epidemics began to register as such before the eighteenth-nineteenth centuries, and their manifestation has been traced and described in a number of scientific developments and textbooks. I will mention here some of the epidemics in the XX century and the subsequent ones in the first twenty years of the XXI century.

As a chronology, one of the first influenza epidemics registered as such was in 1781 of the territory of present-day Italy. It quickly covers the regions of Central and Western Europe, reaches the United Kingdom and from there to Africa and North America.

In 1918-1920, one of the worst influenza outbreaks known as Spanish flu or H1N1 erupted across Europe. In a two-ton period in the world, they were infected at 550 million souls. During this historical period, approximately 30% of the planet's population. Reported deaths globally are in the order of 50 to 100 million or between 2,5% and 5,5% of the population. In the first six months, flu kills more than 25 million. This is by far the worst epidemic in human history. In many countries' administrative offices, cinemas, theaters, schools and shops remain closed for one year[4].

The second case of influenza epidemic in the world began in 1957, beginning in the southwestern province of China Guizhou - China. This flu is type A, which infects millions of people worldwide and kills 1,1 million souls.

[3] https://en.wikipedia.org/wiki/Viral classification

[4] The name of the flu during that period was given by Spain. In the midst of FWW, many soldiers from both warring countries are infected or dying from the flu, but from a strategic point of view, everything is kept secret by everyone. Spain alone is the one who announces the pandemic, and from there comes the name of the virus.

Fifty years after the Spanish Flu and ten after the Asian Flu in 1968-1970, a new epidemic is emerging, re-engaging the world - Hong Kong Flu or H3N2. A new type A influenza virus began to spread in Hong Kong (the first case was detected in the city) from July 1968, infecting 500 000 people within two weeks or as much as 15% of the population. The virus is most commonly affected by the elderly over 65/70. Typically, this flu is highly contagious with high prevalence. The new virus has the ability to mutate. From mainland Asia, it reaches the US and Europe weeks later. Since the onset of another epidemic, many medical drugs have been created to help fight the flu epidemic.

In 1977, the so-called Russian influenza N1H1 appeared, for which no pathogen of animal origin was identified. There is a theory that this virus was released by a Russian military laboratory, but there is no evidence to support this claim. During this period, there were no technologies for tracking the viral genome.

Between 2002 and 2004, a new influenza known as SARS (severe acute respiratory syndrome) appeared. The virus originated in China in 2002 and was first detected by a bat. Coronaviruses, commonly known as SARS CoV, often cause infections in both humans and animals, from a bat through a pet. It is thought to be a coronavirus strain usually found only in small mammals, which allows it to infect humans. There are two self-limiting foci of SARS that have led to a highly contagious and potentially life-threatening form of pneumonia. Both occurred between 2002 and 2004. SARS infection has spread rapidly from China to other Asian countries. There are also a small number of cases in several other countries, including 4 in the UK, plus a significant outbreak in Canada, Toronto. The SARS epidemic was eventually brought under control in July 2003, following a policy of isolating people suspected of having these symptoms, as well as checking all air travelers from the affected countries and regions for signs of the infection 8098 cases of SARS and 774 deaths were recorded during the infection period. This means that the virus killed about 1 in 10 people, or 9,55% of deaths from those infected. People over 65/70 years of age are particularly at risk, with over half of those who died of the infection are in this age group. In 2004, there was another smaller SARS outbreak related to a medical laboratory in China. It is thought to be the result of someone having direct contact with a SARS virus sample and not caused by transmission from an animal to a human.

Avian influenza or H5N1 developed in 2005-2014 as an acute and highly contagious infection, damaging the digestive and respiratory systems, causing high mortality. Propagators and causative agents are domestic and migratory birds, usually wild geese. In August 2005, 112 bird flu cases were reported in Vietnam, Thailand, Cambodia, Indonesia, 64 of which were deaths, or more than 57% in this case. The transmission of the infection occurs from birds to humans, no transmission of the virus from person to person has been established. In an effort to stop the spread, millions of poultry have been destroyed and vaccinated by the virus, authorities and veterinary services.

Swine flu or H1N1 is occurring in the period 2009-2010, during those years in Mexico and the United States, outbreaks of this new type of flu have been detected during this period. The virus is highly contagious, transmitted from person to person, with the source being a pig. A new form of the influenza virus infects an estimated 70 million people in the United States, with worldwide deaths at 575 400. Characteristic of this virus is that it also affects younger age groups below 65 years. On June 11. 2009, the WHO declared the swine flu pandemic, the first pandemic in 40 years, to determine the sixth threat out of six possible.

MERS appeared in 2012-2015 as the closest relative to the modern coronavirus that is causing the epidemic now. It is an inflammatory disease of the respiratory system caused by a virus of the genus "Betacoronavirus" of the subfamily Coronavirinae. In 2013, it was officially called the "Middle East Respiratory Syndrome Coronavirus". The first cases of MERS were detected in early 2012 in Saudi Arabia, with high mortality. By mid-2015, more than 23 countries were reported worldwide - Saudi Arabia, Yemen, UAE, France, Germany, Italy, Greece, Tunisia, Egypt, Malaysia, Thailand, South Korea and other countries.

In early December 2019, in Wuhan, Hubei, central China, the first cases of pneumonia of unknown origin were detected by locals related to the local animal and seafood market, Huanan. On December 31, 2019, the Chinese authorities informed the World Health Organization of an outbreak of unknown pneumonia. On 01/01/2020, the animal market in Wuhan closed because of the reasons for the new virus. On February 11. 2020, Chinese virologists isolated the new genome of the virus and named it SARS-CoV-2 (Severe acute respiratory syndrome coronavirus 2) or became popular under the name Coronavirus, COVID-19. It is a second-generation type A virus that causes acute respiratory disease in the human population, the size of the virus being 70-90 nm. A characteristic feature of the virus is its original source of the bat through a snake and a human skipping. This means that the human population has no immune defenses against the new invader. The virus has a high infectivity of 4-5 factors or 10 people infect 40 in one generation infect 1600, the infectivity is between 100 and 200 times in two generations. Mortality in Covid - 19, according to official figures from China for the country is 2,5%, with the city of Wuhan 4,5% per 1000 people die 45 or mortality is forty-five times higher than the ordinary flu. By its nature, this virus is unique, has a short latency period and a long incubation period. Another characteristic of this type of virus is its susceptibility to the age group of 65+ people and the smallest age group in newborns from 0 to one month, in which their immunity is weakest or not yet strong.

Results

Mortality as a physiological act can also be seen as a social phenomenon caused by different factors that form two basic groups - objective and subjective. The first includes:

- ✓ Ecological - air, water and soil pollution, floods, volcanic activity, tsunamis, landslides, fires, mining and more.
- ✓ Biological - hereditary diseases, diseases, viruses, psychological stress, aging of the body, epidemics caused by bites and more.
- ✓ Political - change of political regimes, military actions, repression, genocide, religious and political persecution and more.
- ✓ Social - religious beliefs, ethno-cultural community, mentality and others.
- ✓ Economic - employment, standard of living and more.

The subjective factors of the second group are: working conditions, work activities and habits, educational qualification, life goals, health culture (use of alcohol, tobacco and opiates), eating habits, lifestyle and others.

John Graunt (1620-1674) examines the mortality of the population in London by gender and age, causes of mortality, past social life of both sexes.

Another English scientist, Edmund Halley (1656-1742) is an astronomer, mathematician, physicist, author of the first table of mortality. Based on the use of age-related data in Breslau in 1687-1691. He used the so-called. The "method of the dead" (Halley's method). At a later stage, the mortality table

becomes a major method of demographics. Various varieties of it appear, applied according to the goals set by the researchers and their available information (Petrov, 2019).

Under the influence of various factors - geopolitical, socio-economic, environmental and other, the mortality rates in the regions of Europe vary over historical periods. Different scales are used to estimate mortality rates, and for the purpose of development, I apply the mortality rate scale developed by the UN Geodemography Experts, shown in Table 1.

Table 1. Mortality Scale. Source: own calculation based UN, 2018

Rating	**Mortality rate (‰):**	
	Total mortality	**Infant mortality**
Extremely low	under 5	under 10
Very low	5-10	10-20
Low	10-15	20-30
Medium	15-20	30-40
High	20-25	40-50
Very high	25-35	50-75
Extremely high	under 35	under75

The latest official Eurostat 2011 European Census reports the following average mortality rates of 11 ‰ for the continent. For 2015, the EU based on 28 Eurostat statistics countries has a mortality rate of 10,26 ‰, with a decrease of 10 next years. For the Community, the death rate in 2017 was 10,3 ‰, with 5,3 million Europeans dying last year, 134 thousand fewer than in the previous year (according to Table 1, the EU in those years has low mortality). The lowest mortality rate in the Western and Southern Europe regions is below 9 ‰ for 2011. The lowest indicators are Liechtenstein's 7,3 ‰ and France's 8,55 ‰ for 2011. With the highest mortality rates, the former socialist countries of Eastern Europe are: Latvia 13,64 ‰, Estonia 13,30 ‰, Romania 11,81 ‰. Bulgaria has the highest mortality rate of 14,6 ‰ in 2011. From the countries in Europe and in particular from those in the EU, the countries with extremely low mortality according to the scale of Table 1 for 2016 are Ireland 3,25 ‰, Turkey 5,3 ‰ and Azerbaijan 5,8 ‰, countries with very low mortality, for the same year are Belgium 9,55 ‰, Denmark 9,25 ‰ and Armenia 9,4 ‰. The leading economies in the Community for 2016, with very low mortality, are the countries - France 8,9 ‰ and the Netherlands 8,77 ‰.

In the table. 2 shows the mortality of continental Europe in the five-year period from 2014 to 2018. For the last calendar year, Eurostat, no information is yet available on this physiological-social process, but based on the previous information, the analysis will be based on a logical sequence. The table includes territories including the EU, the Eurozone, the countries with the highest percentage of population age 65+ (Italy over 20%), as well as the United Kingdom (outside the EU) and Switzerland, as countries with a high percentage of age population again (over 19%). The main idea is to increase mortality in these territories and link it to the new viral pandemic on continental Europe.

In the table. 2 shows the death rates for certain countries in Europe, the EU and the Eurozone, with the unifying unit being the highest percentage of the population in the highest age group, people

over 65/70 + years. For the EU from start to finish, mortality rates are rising steadily, due to the high standard of population in the "old" Union member states, the high average life expectancy and the slow change of generations. Accepted countries in the Community, on the other hand, have a high mortality rate due to socio-economic reasons, which in turn leads to an increase in EU average mortality rates. Eurozone mortality rates from start to finish do not change dramatically. In the following countries Spain and France, the mortality rate is below 10‰, which is below the EU average over the whole five-year study period. Germany is the country with the largest population of the EU, with a high standard, a high average life expectancy, a slow change of generations and a high proportion of people in the highest age group. All these socio-economic elements lead to high mortality rates, above the EU average, throughout the study period. Italy has a high mortality rate, approaching Germany, but with a population of 20 million less. The country has the highest percentage of aging population, which makes up over 20% of the total. The high standard, the slow change of generations and the almost zero negative growth are the reasons for the present geodemographic picture of Italy. The United Kingdom and Switzerland were included in the study because of similar demographic elements accompanying the population of countries. Comparing the mortality rates of the last two countries with those of the EU, it can be seen in table. 2 that they are below the Community average.

Table 2. Mortality on Europe 2014-2018 in ‰. Source: Eurostat

Area	2014		2015		2016		2017		2018	
	Mortality ‰		Mortality ‰		Mortality ‰		Mortality ‰		Mortality ‰	
EU	4372607	9,87	4620411	10,41	4534200	10,19	4659998	10,46	4693445	10,52
Euro area	3209109	9,50	3385621	10,00	3397879	10,00	3405411	10,00	3411457	10,00
Germany	868356	10,75	925200	11,39	910902	11,08	932272	11,30	954874	11,53
Spain	393734	8,47	420408	9,05	408231	8,79	422037	9,07	425153	9,11
France	559435	8,46	593807	8,94	594005	8,91	606410	9,08	609747	9,11
Italy	598364	9,84	647571	10,76	615261	10,14	649061	10,71	633133	10,47
Netherlands	139223	8,27	147134	8,71	148997	8,78	150214	8,79	153363	8,93
UK	568840	8,84	601272	9,27	595655	9,11	605748	9,20	614313	9,27
Switzerland	63938	7,86	67606	8,21	64964	7,80	66971	7,95	67088	7,91

A new pandemic from Covid-19 has brought the world another challenge, the salvation of human civilization and its next stage after the passage of the pandemic shock. The European continent took the brunt of the pandemic, by mid-April 2020, approximately 1 000 000 people were infected, with the number constantly changing, making up 0,14% of the population, as compared with the EU infected with Covid-19, are approximately 800,000 or 0,16% of the total population. Italy has the highest proportion of people infected with the virus, 132 548 people, or 0,22%, with the country reporting the highest virus deaths of 13 341 or 10% of those infected, with an average of 4,5%, is 2,5 times more. Spain is the second country in Europe to suffer major damage from the pandemic, 136,675 people infected or 0,3%, the death rate is 13 789 people infected or 0,10%. Again, 565 people were infected in Bulgaria, 22 or 3,89% died and 42 people were cured. Globally, there are 1 346 004 people infected and 74 654 deaths as of that date.

Conclusion

Mortality is a major socio-economic manifestation that accompanies human civilization from the dawn of its existence to the present day. Epidemics and pandemics are cyclical, and their formation, development and manifestation on a global scale occur independently of the socio-economic prosperity of human society. Mortality in Western Europe is high due to the high percentage of people in the highest age group. In the last 120 years, humanity has experienced several pandemics, with the Spanish flu in the 1920´s killing millions of people, and a hundred years later, a similar pandemic threatening the lives of humans has resurfaced. The experience gained from previous similar processes allows for a better response from relevant countries and organizations on a global plan for adequate response. The new Covid-19 pandemic is affecting the elderly and people with comorbidities more. There is a high rate of contamination and a high mortality rate for those infected. The preservation and survival of the human population is paramount, as are the lessons that each individual must draw for himself, because all living beings on planet Earth live in symbiosis.

References

Chopeva, M. (2011), Migration intentions of the Population from some Rural Municipalities, Bulgaria Rusticana, ed., BAS, pp.184-193, ISBN: 978-954-8465-68-7.

https://ec.europa.eu/eurostat/web/population-demography-migration-projections/data/database

Kohlmeier, S., Kyle Lo; Lucy Lu Wang; JJ Yang (2020), COVID-19 Open Research Dataset (CORD-19), Journal of Bio-based Marketing vol. 1, 2020, DIO 10.5281/Zenodo 3731937.

Kolaj, R., P. Borisov, A. Osmani, D. Skunka (2018). Development of Agriculture in Peri-urban areas – challenges and Perspectives. Knowledge International Journal. Vol. 26. pp.1124-1134.

Marinov, P., (2018), Geodemographic Status and Urban Structure in Rural Areas of South Central Region, Plovdiv, ed. Koala Press, ISBN 978-619-7134-68-1.

McEvedy C., and Jones, R., (1978), Atlas of World Population History, Facts on File, New York, ISBN 0-7139-1031-3.

Petrov, K., (2019), Regional Demography, ed. Fast Print Book, Plovdiv.

ttps://www.worldometers.info/coronavirus/

Wilkinson, J. and Dahly, D. (2020), Statistical review of Favipiravir versus Arbidol for COVID-19: A Randomized Clinical Trial, Journal of Bio-based Marketing vol. 2020, DIO 10.5281/Zenodo 3734198.

VALUE CHAIN MODEL IN WINE PRODUCTION

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Abstract

The condition for survival in the contemporary market of a business entity is to achieve competitiveness. Among other value chain analysis is an effective and efficient strategic management tool for improving its competitiveness especially when it comes to internal analysis of a business entity. This paper presents the results of theoretical and practical research conducted into value chain analysis with particular emphasis on application in wineries as business entities. The output of the above research is a model of the winery value chain in wine production consists of characteristic elements, business units, can be defined depending on the business they do grape growers only and/or grape growers and wine producers as well as the profiles of value chains - primary and secondary production, which was successfully applied for the analysis of wineries of one district in the Republic of Serbia.

Key words: research, competitiveness, value chain analysis, wine production

Abstrakt

Die Voraussetzung für das Überleben auf dem heutigen Markt eines Unternehmens ist die Erreichung der Wettbewerbsfähigkeit. Die Wertschöpfungskettenanalyse ist unter anderem ein effektives und effizientes strategisches Managementinstrument zur Verbesserung der Wettbewerbsfähigkeit, insbesondere bei der internen Analyse einer Geschäftseinheit. In diesem Artikel werden die Ergebnisse theoretischer und praktischer Untersuchungen zur Wertschöpfungskettenanalyse vorgestellt, wobei der Schwerpunkt auf der Anwendung in Weingütern als Unternehmen liegt. Das Ergebnis der obigen Forschung ist ein Modell der Weingut-Wertschöpfungskette in der Weinproduktion. Es besteht aus charakteristischen Elementen, Geschäftseinheiten, die je nach dem Geschäft, in dem sie nur Weinbauern und / oder Weinbauern und Weinproduzenten betreiben, sowie den Profilen definiert werden können von Wertschöpfungsketten - Primär- und Sekundärproduktion, die erfolgreich für die Analyse von Weingütern eines Bezirks in der Republik Serbien eingesetzt wurde.

Schlüsselwörter: Produktstrategie, Marktanteil, Umsatzrendite, Eigenkapitalrendite, Kapitalrendite

Résumé

La condition de survie sur le marché contemporain d'une entité commerciale est d'atteindre la compétitivité. Parmi les autres analyses de la chaîne de valeur, il y a un outil de gestion stratégique efficace et efficient pour améliorer sa compétitivité, notamment en ce qui concerne l'analyse interne d'une entité commerciale. Cet article présente les résultats de recherches théoriques et pratiques menées dans l'analyse de la chaîne de valeur avec un accent particulier sur l'application dans les établissements vinicoles en tant qu'entités commerciales. Le résultat de la recherche ci-dessus est un modèle de la chaîne de valeur de la cave dans la production de vin se compose d'éléments caractéristiques, les unités commerciales, peuvent être définis en fonction de l'entreprise qu'ils font uniquement des viticulteurs et

/ ou des viticulteurs et des producteurs de vin ainsi que les profils des chaînes de valeur - production primaire et secondaire, qui a été appliquée avec succès pour l'analyse des établissements vinicoles d'un district de la République de Serbie.

Mots clés: recherche, compétitivité, analyse de la chaîne de valeur, production de vin

ntroduction

The value chain analysis comes from the French concept 'filière' was developed in the 1960s as an analytical tool for empirical research in agriculture at the Institute National de la Recherche Agronomique (INRA) and at the Centre Internationale en Recherche Agronomique pour le Développement (CIRAD) and commodity chain (Wallerstein, 1974) Derivative concepts, such as Porter's value chain concept was developed in the mid-1980s by Porter, in the context of his work on competitive advantage (Poeter, 1985), Gereffi's global commodity chain was developed in the 1990s by Gereffi (Gereffi, 1994) as well as Humphrey's global economic triangle was developed at the beginning of this century by Messner (Messner, 2002) were derived from them (Faße, Grote, Winter, 2009).

Business value chain analysis is a strategic method used for internal economic entity analysis, and is the process by which within the economic entity the primary activities and support activities that add value to the final product are first identified and then analyzed to reduce costs or increase differentiation (diversity) of the product in order to gain its competitive advantage (Krstić, Gavrić, Skorup, 2018).

If an economic entity intends to gain competitive advantage in terms of costs, they will strive to carry out their activities at a lower cost when compared to their competitors, that is, they will undertake the appropriate measures to produce the goods at lower costs.

If an economic entity intends to gain competitive advantage in terms of differentiation (diversity) of products, they will strive to do certain activities better than their competition, that is, to create products which are superior to competition's.

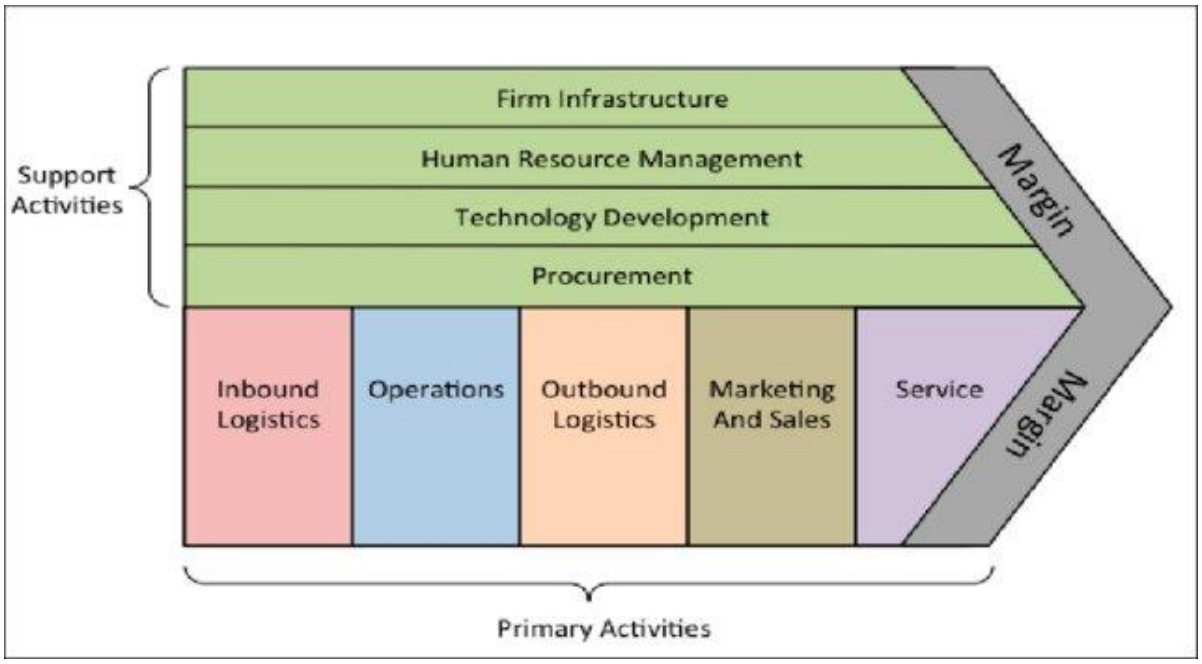
In both cases the goal is to gain more profit on the basis of competitive advantage.

The purpose of this paper is Value Chain Model in Wine Production. Therefore, the paper first briefly outlines Theory of the Value Chain Model, ie what are the approaches to implementing the value chain analysis, what are the factors that influence the value chain, how to build the Value Chain System and what are the possibilities of applying value chain analysis. Using the principles of this theory in further research, the focus is shifted to the Wine Value Chain based on which the authors built two models, the Grape Value Chain Model (primary production) and the Wine Chain Value Model (secondary production), which served to empirically researches the value chain of wineries in one district in the Republic of Serbia. The afore mentioned empirical research into the value chain of wineries has enabled the formation of a value chain creation model for wineries, which included primary production (grape growing) and secondary production (wine production) in the winery, as well as distribution and retail outside them. In addition, it has enabled the formation of competing Winery Value Chain Profiles and a Winery Value Chain Profile.

Results

Theory of the Value Chain Model. Michael Porter (Porter, 1985) presented generic chain value model (Figure 1) on the basis of which he explained how an economic entity gains competitive advantage. From that point of view value chain is a tool of strategic management where an economic entity is seen as a whole, and all the activities within it are divided into two sets of strategically important activities which create or contribute to value creation. In doing so, each of the activities creates costs and binds certain resources. Value chain eventually includes business profit which surpasses the costs of all the activities and which customers are willing to pay. In that sense, value chain consists of both basic and support activities.

Figure 1. Michael Porter's value chain. Source: (Porter, 1985)



Basic activities are usually a source of cost advantage, as the costs for each activity can be easily identified and managed properly. Although only basic activities directly add value in the production process, they are not necessarily more important than support activities. Nowadays competitive advantage comes mainly from knowledge, that is, technological improvements or innovations in business models or processes, therefore support activities, represented by "information systems", "research and development" or "management" may represent the most important source of cost advantage or differentiation.

Formation of economic entity chain value starts with the analysis of output effects and ends with defining input elements, that is, a value chain starts from the analysis of the needs that the product meets, goes through the way of value creation and gets to the suppliers who provide resources for the whole process. When a value chain model is formed, its analysis and value evaluation go in the opposite direction, that is, it starts with suppliers and their inputs and ends with after-sales services.

Value chain analysis also includes customer values which takes into account two elements; the first – customer desire to buy a particular product and the second – their purchasing power.

All the employees of an economic entity participate in creating value for customers through active participation in the processes and activities thus creating a certain part of the customer value.

The difference between the price of a product on the market and the cost of all the resources used for its creation is called profit.

The aim of value chain analysis is to analyse and compare each of these activities to competition in terms of whether it provides competitive advantages. Low-cost activities of the analysed economic entity compared to the same or similar competitor activities represent an advantage. When analysing it should be considered that primary and secondary activities are interrelated and together represent the basis for competitive advantage.

Value chain has proven to be an adequate tool through which it is possible to integrate in a very simple way all the activities which affect the success of implementation of strategy for achieving competitive advantages.

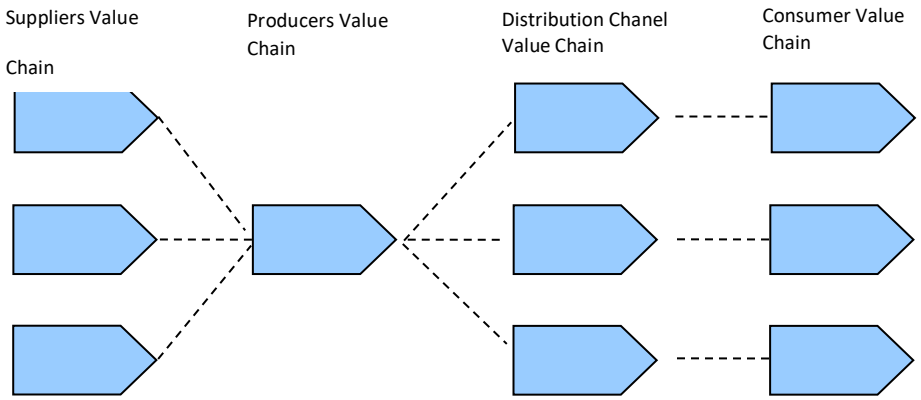
Implementation of value analysis in practice depends on the competitive advantage an economic entity strives to achieve. Depending on what kind of competitive advantage an economic entity wants to create, there are two different approaches to value chain analysis, Table 1. If an economic entity wants to gain competitive advantage in costs, it should carry out 5 steps of value chain analysis, or it wants to achieve competitive advantage in product differentiation, it is necessary to go from creating superior products, and perform 3 steps of the value chain analysis.

Table 1. Types of competitive advantage. Source: (Jurevicius O, 2013a)

Types of competitive advantage	
Cost advantage	**Advantage in bid differentiation**
The business is competing in cost and wants to understand the sources of its cost advantages or disadvantages and the factors that drive those costs.	The business entity seeks to create superior products or services and takes the advantage of differentiation approach.
Step 1. Identifying core activities and support activities. Step 2. Determining the cost for each activity. Step 3. Determining the relative importance of each activity in the total cost of the product. Step 4. Identifying links between activities. Step 5. Identifying opportunities to reduce costs.	Step 1. Identifying customer value creation activities. Step 2. Assess differentiation strategy to improve customer value. Step 3. Identify the best sustainable differentiation.

Value chain analysis within an economic entity often should be extended externally to include its vertical linking on the relation supplier – producer, that is, producer – distributor. In this sense value chain of an economic entity (from the point of view of a single business unit) represents only a part (subsystem) of a system, known as value system (the value chain system for an entire industry), (Figure 2), and represents a logical set of mutual organizational links and relations that are necessary to

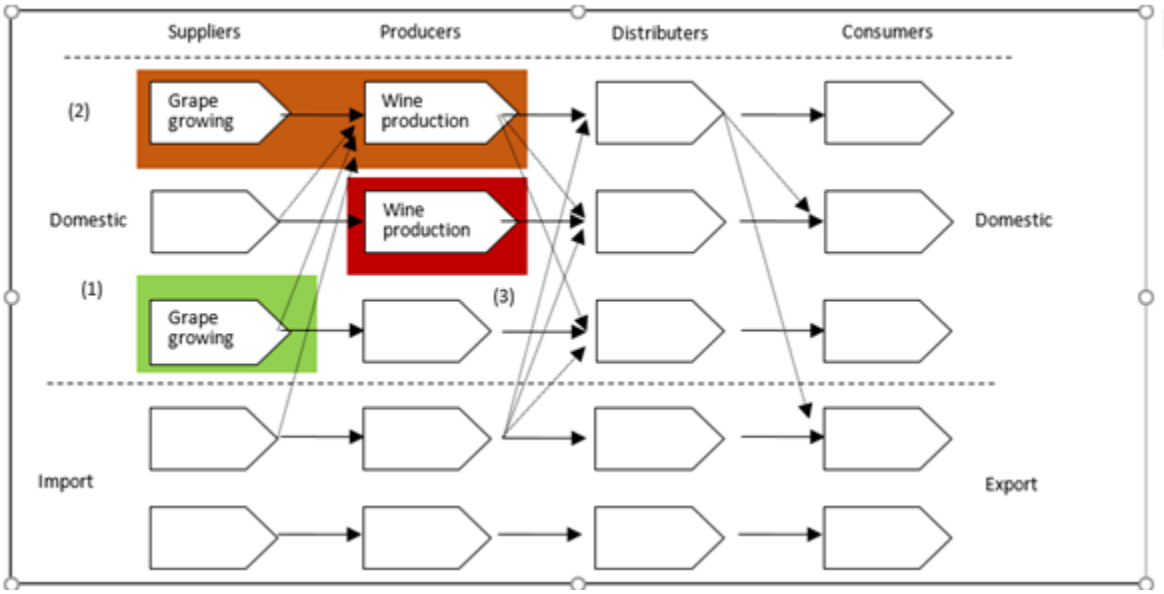
Figure 2. Value chain system. Source: (Porter, 1985)



establish between different economic entities in order to create a product or service. Therefore, this analysis is necessary because customer value is created not only in a value chain of a particular business unit, but also in the value chain formed jointly by suppliers, producers, distributors and customers (Kaličanin Đ, 2005).

The Wine Value Chain. *In* order to apply value chain, it is necessary to firstly define the Value Chain System, which consists of suppliers, producers, distributors and consumers, that is, grape growing business units, wine production business units, wine distribution business units and wine consumers (Figure 3).

Figure 3. Value chain system in wine production. Source: Author



It is evident that there are more business units - suppliers (in this case they are grape growers), they can be domestic and foreign (in which case it is about grape import). Apart from the above mentioned, there are more business units – wine producers, both domestic and foreign. The figure clearly shows that

one wine producer can be supplied by one or more wine growers (including importers). On the other hand, it is clear that one wine producer can serve one or more distributors. Of course, distributors can also be supplied by foreign wine producers (i.e., from import). Similarly, one distributor can serve one or more end users (both domestic and foreign).

Within the Value Chain System in wine production characteristic elements, business units, can be defined, depending on the business they do (grape growing and/or wine production). Further on, of these three types of business units, Grape growers and Wine producers will be singled out as a general case where we will apply in model of the **Value Chain System in wine production** was built (Figure 4), within characteristic elements, business units, can be defined, depending on the business they do (grape growing and/or wine production):

(1) grape growers only;

(2) grape growers and wine producers;

Relevant data of Basic and Support activities in grape growing and in production of wine are presented on the Table 2.

Figure 4. Singled out business unit Grape growers and Wine producers. Source: Author

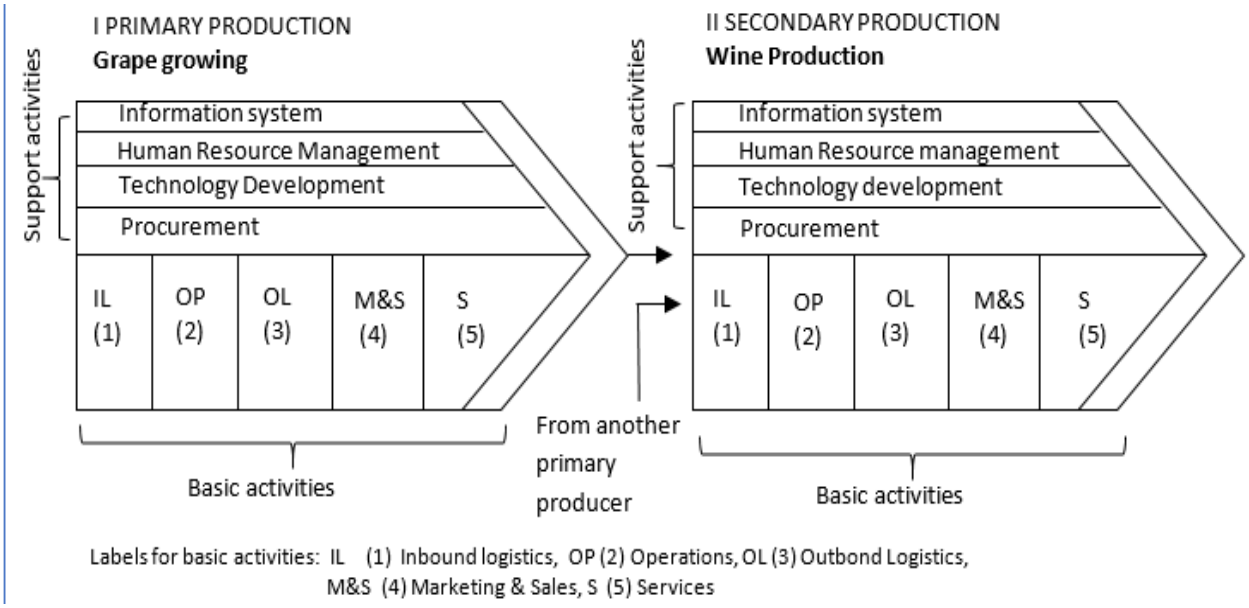


Table 2. Relevant data of basic and support activities in grape growing and in production of wine. Source: Author.

	Relevant data in grape growing	**Relevant data in production of wine**
Basic activities		
Inbound logistics IL (1)	depreciation cost of a vineyard (the costs of forming a vineyard/life expectancy of a vineyard).	available capacity for storage of grapes, costs of reception and control of grapes, costs of storage of grapes.
Operations OP (2)	the costs of cultivating a vineyard, which include costs of applying agro-technical measures in a vineyard: soil preparation, fertilization, irrigation, pruning, spraying (protection of vine from disease and pests).	the structure of the processed grapes, Total production of wine by structure, Cost of processing of wine: primary processing of wine, other activities depending on the kind of wine, clarification, filtration, filling
Outbound logistics OL (3)	the logistics costs of a vineyard, harvesting, loading, transportation of grapes.	The available volume capacity for storage of wine: in bottles, in barrels , Costs of storage of wine: in bottles, in barrels.
Marketing and sales M&S (4)	in marketing: The way of operating in grape growing, Proportional ratio of the use of harvested grapes, Improving marketing, Costs of marketing for grape placement, Communication marketing (Services) in sales Profits from grapes sales in the domestic market, Profits from grapes sales in the foreign market, Countries where grapes are most exported.	in marketing The evaluation of the way of doing business in the production of wine, Promotion of marketing, Marketing costs in the sale of wine by structure, Marketing of communication (Services) in sales Profits from wine sale in the domestic market, Profits from the wine sale in the foreign market, Countries where the wine is most exported.
Services S (5)	the cost of maintain vineyard, repair machines, equipment and tools and keep grape value.	the cost of maintain wineries, install, maintain, adjust and repair machines, equipment and tools and keep wine value.
Support activities		
	the cost types by structure on information system, on development of employee capacity (education, consultations and so on), on procurement of resources.	the cost types by structure on information system, on development of employee capacity (education, consultations and so on), on procurement of resources.

Example of generated Value Chain Model. Based on the principles outlined in the previous chapters of this paper, an example of an empirical study of wineries in one region of the Republic of Serbia based on the Value Chain Model is presented below.

The sample of wineries included a total of 21 wineries in the Rasina district, which accepted participation in research from a total of 28 registered wineries which were registered at the Business directory of wineries (EICRD, 2019) run by the Serbian Chamber of Commerce - Regional Chamber of Commerce of the Rasina Administrative District with headquarters in Krusevac.

The period of the business year 2018 was comprised by the empirical research. Collecting data was carried out in the period from June to September 2019. Collecting data was carried out by personal contact with the relevant representatives of wineries, based on a previously defined questionnaire. On that occasion, the data were filled in the appropriate printed forms. After that, the data were added from the printed forms to the common database in Excel, especially created for this purpose.

The scope of the sample of wineries from the statistical aspect belongs to the category of Student's distribution (<30 elements of the population), which means that it is the small sample of specific population in question consisting of a specific group of wineries. However, regardless of the stated fact that it is about Student's distribution, the research results are showing the authentic state of how the wineries accomplish their competitiveness, viewed from the aspect of the value chain, that is where, how and in what domains should there be action in order to advance their competitiveness.

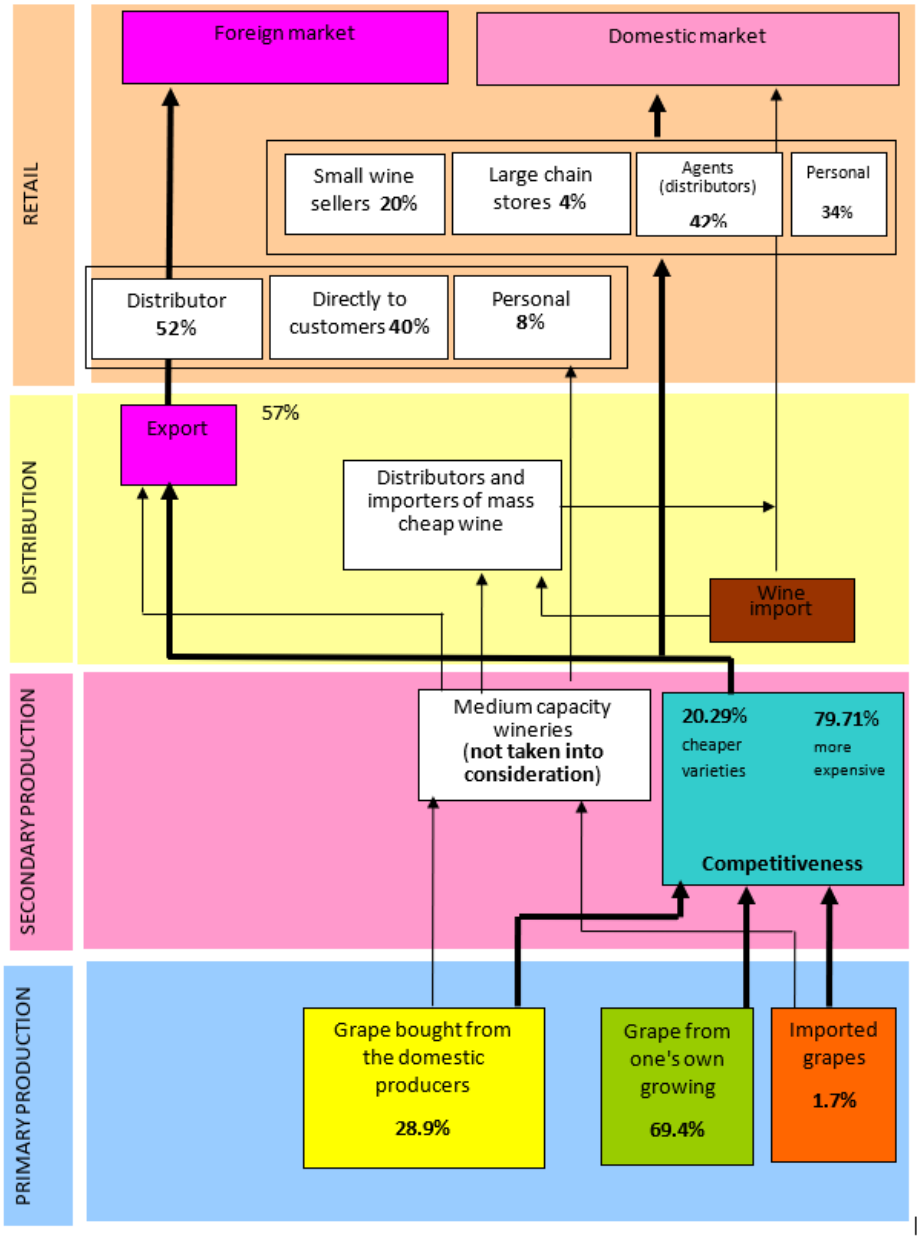
Based on the collected data the quantitative (statistical) and qualitative (descriptive) processing of data were carried out. Quantitative (statistical) data analysis was done in Excel where the descriptive statistics of variables were calculated (middle value, maximum value, minimum value), and the graphs for their graphic interpretation were created. Qualitative (descriptive) processing was done by a logical conclusion based on the descriptive data. Based on processed data, the value chain analysis of values wineries was carried out and presented (Figure 5).

Within the chain of creating value for wineries logistic paths of winery value generation are indicated by thick solid lines, in contrast to that, the other paths of value creation are indicated by thin solid lines. It is important to note that, although during this analysis a larger number of dimensions, that is, an even larger number of variables were used, because of better visibility, within the aforementioned value chain, only a small number of them was selected, while the real picture of the results is obtained only with an insight to Profiles of value chains of primary and secondary production.

Primary production, within the quantitative part of the profile includes 11 relevant dimensions of the value chain analysis of wineries with 11 variables (10 quantitative and 1 descriptive variable), and 2 dimensions with 8 descriptive variables in total within the qualitative part of the profile.

Secondary production, within the quantitative part of the profile includes 26 relevant dimensions of the value chain analysis of wineries with 88 variables (all of them quantitative), and 2 dimensions with 7 descriptive variables in total within the Qualitative part of the profile.

Figure 5. Chain of creating value for wine producers. Source: Research of the author.



Conclusions

This paper briefly presents the results of theoretical and practical research with special emphasis on the value chain of wineries, which were conducted to find an effective way to improve their competitiveness.

The results of this study have definitely confirmed the importance of their application.

The most important exits from the mentioned research are the model of the winery value chain as well as the profiles of value chains - primary and secondary production, which was successfully applied for the analysis of wineries of a district in the Republic of Serbia.

Thus, since the received research results enter the forming of the value chain of wineries, the drawn conclusions for the value chain only of a district it can be generalized for the rest of the wineries in the Republic of Serbia.

References

EICRD. (2019, June 5). Business Directory - Winemakers of Rasina District. Retrieved from Economic Information Center of the Rasina District

Faße A, Grote U, Winter E. (2009). Value Chain Analysis - Methodologies in the Context of Environment and Trade Research, Discussion Paper No. 429. Retrieved from https://www.econstor.eu/bitstream/10419/.../1/609241915.pdf, pristupljeno: 12.12.2018. godine

Gereffi G. (1994). Capitalism, Development, and Global Commodity Chains. In L. Sklair, Capitalism and Development (pp. 211-231). London.

Jurevicius O. (2013a). Value Chain Analysis. Retrieved from Strategic Management Insigh: https://www.strategicmanagementinsight.com/tools/value-chain-analysis.html, 18.1.2018

Kaličanin Đ. (2005). Value chain in analyzing the ability to create value for consumers and owners. Ekonomika preduzeća, yare LIII, broj 7-8, Beograd

Krstić M, Gavrić G, Skorup A. (2018). Business growth and development strategies. I-st Edition, Faculty of Business Economics and Entrepreneurship: Belgrade, Serbia

Messner D. (2002). The Concept of the “World Economic Triangle”: Global Governance Patterns and Options for Regions. Sussex: IDS Working Paper.

Porter M. (1985). Competitive Advantage. London: Macmillan

Wallerstein I. (1974). The Modern World-System. In V. I.-E. Century. New York: Academic Press.

COMPETITIVENESS ANALYSIS OF GRAPE GROWING IN BUSINESS ENTITIES

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Abstract

Success in a business entity depends on its competitiveness as well as the type of business in which it operates. In this sense, the competitiveness of an economic entity implies the fulfilment of both of these strategic guidelines, namely: the profitable attractiveness of the type of activity to which it belongs and its relative competitive position.

This paper presents an analysis of the competitiveness of economic entities belonging to the grape growing and wine production industries. There are favourable conditions in the Republic of Serbia for both grape growing and wine production, which is why this activity has a significant tradition. The business takes place in traditional large wineries, but increasingly in small wineries that are predominantly family-owned. In order to improve the business of small wineries, an empirical study of their competitiveness was created. This paper presents the results of a practically conducted survey of the wineries of one administrative district in the Republic of Serbia. The analysis of the relative competitive position of the business entities within the industry was conducted on the basis of a comparison of the relative costs of basic activities and support activities of wineries. Appropriate tools for comparing wineries' competitiveness emerged from the analysis.

Key words: competitiveness, grape production, wine production, analysis, business processes

Abstrakt

Der Erfolg eines Unternehmens hängt von seiner Wettbewerbsfähigkeit sowie von der Art des Geschäfts ab, in dem es tätig ist. In diesem Sinne impliziert die Wettbewerbsfähigkeit einer wirtschaftlichen Einheit die Erfüllung dieser beiden strategischen Richtlinien, nämlich: die profitable Attraktivität der Art der Tätigkeit, zu der sie gehört, und ihre relative Wettbewerbsposition.

Dieses Papier enthält eine Analyse der Wettbewerbsfähigkeit wirtschaftlicher Einheiten der Weinbau- und Weinindustrie. In der Republik Serbien gibt es günstige Bedingungen für den Weinbau und die Weinproduktion, weshalb diese Tätigkeit eine bedeutende Tradition hat. Das Geschäft findet in traditionellen großen Weingütern statt, meist jedoch in kleinen Weingütern, die sich überwiegend in Familienbesitz befinden. Um das Geschäft kleiner Weingüter zu verbessern, wurde eine empirische Untersuchung ihrer Wettbewerbsfähigkeit erstellt. Dieses Papier präsentiert die Ergebnisse einer praktisch durchgeführten Umfrage unter den Weingütern eines Verwaltungsbezirks in der Republik Serbien. Die Analyse der relativen Wettbewerbsposition von Unternehmen innerhalb der Branche wurde auf der Grundlage eines Vergleichs der relativen Kosten von Grundaktivitäten und Unterstützungsaktivitäten von Weingütern durchgeführt. Aus der Analyse gingen geeignete Instrumente zum Vergleich der Wettbewerbsfähigkeit von Weingütern hervor.

Schlüsselwörter: Wettbewerbsfähigkeit, Traubenproduktion, Weinproduktion, Analyse, Geschäftsprozesse

Résumé

Le succès d'une entité commerciale dépend de sa compétitivité ainsi que du type d'entreprise dans laquelle elle opère. En ce sens, la compétitivité d'une entité économique implique la réalisation de ces deux orientations stratégiques, à savoir: l'attractivité rentable du type d'activité auquel elle appartient et sa position concurrentielle relative.

Cet article présente une analyse de la compétitivité des entités économiques appartenant aux filières viticole et viticole. Les conditions sont favorables en République de Serbie pour la viticulture et la production de vin, raison pour laquelle cette activité a une tradition importante. L'entreprise se déroule dans de grands établissements vinicoles traditionnels, mais principalement dans de petits établissements vinicoles à prédominance familiale. Afin d'améliorer l'activité des petites caves, une étude empirique de leur compétitivité a été réalisée. Cet article présente les résultats d'une enquête menée dans les établissements vinicoles d'un district administratif de la République de Serbie. L'analyse de la position concurrentielle relative des entités commerciales au sein de l'industrie a été réalisée sur la base d'une comparaison des coûts relatifs des activités de base et des activités de soutien des établissements vinicoles. Des outils appropriés pour comparer la compétitivité des caves ont émergé de l'analyse

Mots clés : compétitivité, production de raisin, production de vin, analyse, processus d'affaires

ntroduction

***The grapes and wine production in the Republic of Serbia*.** Grapes and wine are traditional agricultural products that are well placed on the market and their production represents one of the significant branches of agricultural production.

The Republic of Serbia has great potential and represents a great area for winegrowing, perhaps even the best on the Balkans, and it grows grapes with the ideal balance of acidity and sugar. It is situated between the 42nd and the 46th degree of northern latitude and has the position which places it among the most favorable zones for winegrowing. (Vlahović, 2017)

Winegrowing Serbia has 3 winegrowing regions with 22 areas, 77 subareas and more winegrowing oases, which, based on climatic, land, topographic and other characteristics represent areas with the most favorable conditions for grape growing and production of quality wines with geographic origin. Quality grapes represent the foundation for the production of quality wines, and at the same time for the development of wine industry and wineries as key factors in this branch. In view of the fact that grape growing and wine production in Serbia have a long tradition, it is clear that winegrowing and winemaking make one of the most important economic activities.

Serbia, with the total area of 54.000 ha under vineyards takes the 25th place in the world, and more than 80.000 households are engaged in winegrowing. Wine production often takes place in wineries, and currently there over 350 market-oriented wineries in Serbia which employ over 3,500 people, out of which the number of full-time employed is around 2,000, and the number of part-time employed is around 1.500. On the other hand, Serbia takes the 16th place in the world with the yearly production of 230

million liters of wine, where the total value of produced wine is larger than 300 million USD. The average yearly quantity of exported wine from Serbia is 13.6 million liters, and the total value of exported wine is 16.2 million USD, where the average value of exported wine per liter is 1,19 USD/lit.

It should be mentioned that in Serbia, apart from the above mentioned commercial wineries, there is a large number of small family wine producers which produce wine for their own needs, because of tradition or a hobby, but certainly these small producers, the hobbyists can at one point become the backbone of the rural development of certain winegrowing areas, by combining the production of wine with the production of other local products. (Jakšić, Ivanišević, Đokić, & Brabaklić Tepavac, 2015)

Competitiveness, according to (Krstić, 2013) is "a concept of comparative abilities and performances of economic entities, economic sectors (subsectors) or countries to sell and deliver goods and/or services on the given market". Competitiveness represents a competition, that is, a process of competing in order to achieve better results. The competitiveness in economy implies the ability of an economic entity to achieve success, to adapt and survive on the market, in other words, it is a concept of doing business which enables the economic entity to develop faster than his rivals (competitors) (Gačić, 2016).

Competitive ability of an economic entity, according to (Train and Egbu, 2006), can be understood as "the core of success or failure of an economic entity". In other words, it can be said for an economic entity that it is competitive if it makes profit which is on the level exceeding the average of an economic branch it belongs to.

Intensive and fast changes present in the environment of an economic entity have an impact on the traditional elements of competitiveness, concerning products and services in terms of quality, prices, the width of assortment so that they are supplemented with a new element which takes into consideration the speed of innovating and introducing goods and services to the market.

The sustainable competitiveness of an economic entity depends a great deal on resources and abilities it possesses.

Traditional resources of an economic entity according to (Drucker, 2002), are the capital, physical resources, labour, management and time. Non-traditional resources of an economic entity comprise the intellectual potential of the employed, and it especially relates to that knowledge which defines certain competencies, so it can be said that the sustainable competitiveness of an economic entity is "what his employees know and what they can do with what they know" (Krstić, 2013).

Business competitiveness is a marketing phenomenon. Success in a business entity's business depends on both competitiveness and the type of industry in which it operates. (Krstić M, Gavrić G, Skorup A, 2018).

Competitiveness is the basis that determines the success or failure of an economic entity, as well as the extent to which the activities undertaken are adequate to contribute to the development of its key characteristics such as innovation, organizational culture, successful implementation, etc. and represents its ability to achieve the value of a product and / or service that exceeds its manufacturing costs, which its customers are still willing to pay.

Business activity has been adopted here as a generic term which may refer to an industry, industry, trade, other economic segment, sector, grouping of companies, or industry. The analysis of the competitiveness of the business entity from the point of view of the industry indicates that its position in

the industry is of great importance since the currently established structure within the industry determines and defines the ways of business process, rivalry, marketing, technology and development, as well as the choice of long-term business strategies. The activities differ in their profit potential and in terms of creating and developing the competitiveness of business entities. The profitability of an activity is primarily determined by its structural characteristics. Therefore, business analysis should include both supply and demand. The offer, because the economic entities offer an assortment of products or services that they offer as a rule, by the same or similar technological processes, and the demand because the assortments of the economic entities are related or interchangeable. (Tipurić, 2018).

When choosing a (competitive) strategy that will enable an entity to succeed in the long run, the following strategic guidelines are important. (Porter, 2008):

- **Profitable attractiveness** of the business activity of the business entity, including factors that determine long-term profitability. It is well known that different activities do not have equal opportunities for sustainable profitability, and that comes from inherited profitability, for example, it is not the same business within the electricity industry or within the office supplies trade.
- **The relative competitive position** of the business entity within the business activity. It is well known that within the same business, some businesses are much more profitable than others, regardless of the average profitability of the business.

In this way, the competitiveness of one business entity determines the representation of the two determinants.

Sample. An empirical research was conducted on a sample of 21 wineries from one administrative district in the Republic of Serbia, in order to assess the situation and improve the competitiveness of wineries.

The initial assumption was that wineries achieve their competitiveness on the basis of business efficiency (wine varieties, types of wine, wine price, quality of wine, etc.) as well as the efficiency of their business (costs, level of means of labour, etc.).

In this sense, a research has been created, based on the evaluation of business effectiveness, which is based on the cost of doing business, both core activities and support activities. The competitiveness criterion was the comparison of the costs of their business activities. When it comes to core activities, a winery is all the more competitive if it has lower operating costs, and when it comes to the costs of support activities, the cost structure here is significant as well, especially the marketing costs. When it comes to presenting the cost structure of wineries' costs, since they are data that affects the business of each business entity individually, it was decided to present them in relative terms, relative to the total costs.

The structure of the sample, that is, the wineries included in the survey is briefly presented below.

According to the results of the survey of the observed wineries (Table 1), dominate those with areas of the vineyards less than 3 ha. More than 70 % of the sample has area less 3 ha and just 14% of the wineries from the sample worked on the vineyards bigger than 5ha.

Table 1. Structure of the sample by area under vineyards. Source: Own survey, 2020.

Number of wineries	Under 1 ha	From 1 to 3 ha	From 3 to 5 ha	More then 5 ha
Area under vineyards	6	9	3	3
% of the sample	28,57%	42,86%	14,29%	14,29%

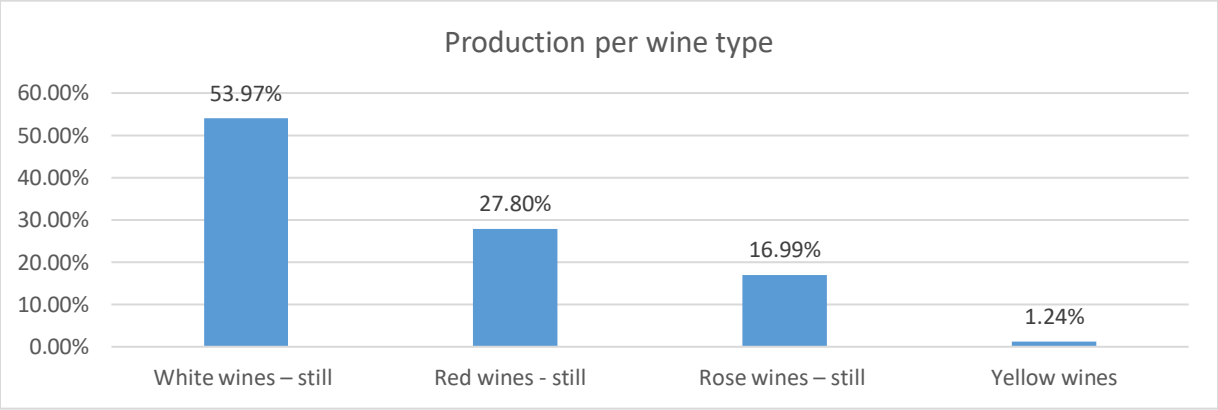
Considering wine production of the wineries from the sample, according to the Table 2. one third of the wineries covered belong to the group that produces between 20 and 30 thousand liters of wine produced, 28% of wineries belong to small wineries with wine production below 10,000 liters, 24% have production of 20,000 to 30,000 liters and 14% more than 30,000 liters of wine.

Table 2. Structure of the sample by volume of the wine production. Source: Own Survey, 2020.

Number of small wineries	Under 10.000 l	From 10.000 to 20.000 l	From 20.000 to 30.000 l	More then 30.000 l
Wine production of the winery	6	7	5	3
% of the sample	28,57%	33,33%	23,81%	14,29%

The summarized data on wine types Chart 1 from the conducted survey shows that the covered wineries produce wines, that can be classified into four categories. The dominant category of wines produced is white wines - still with close to 54% of total production, followed by red wines - still with close to 28%. Rose wines - still represent about 17% of total production and Yellow wines are under-represented with just over 1% of total production.

Chart 1. Production structure per wine type. Source: Own survey, 2020.



Results

Here is presented some of the results of the empirical research conducted to analyse the competitiveness of grape growing and wine production in commercial entities. Results are presented that include an analysis of the relative costs of core activities and support activities of the sample wineries. Part of the results concerning grape cultivation are presented here, while due to the volume, the analysis of wine production has been omitted.

Structure of average values of basic activity costs in the sample of wineries is shown on the Table 3 and Chart 2. From average costs of basic activities, the biggest value was of agro technical measures costs in the vineyard 49,1% of the total costs, then logistics costs of the vineyard 24,8%. Grape growing support costs was 13,4% and the minimum was value of the vineyard depreciation costs of 12,7%.

Chart 2. Grape growing operation costs. Source: Own survey, 2020.

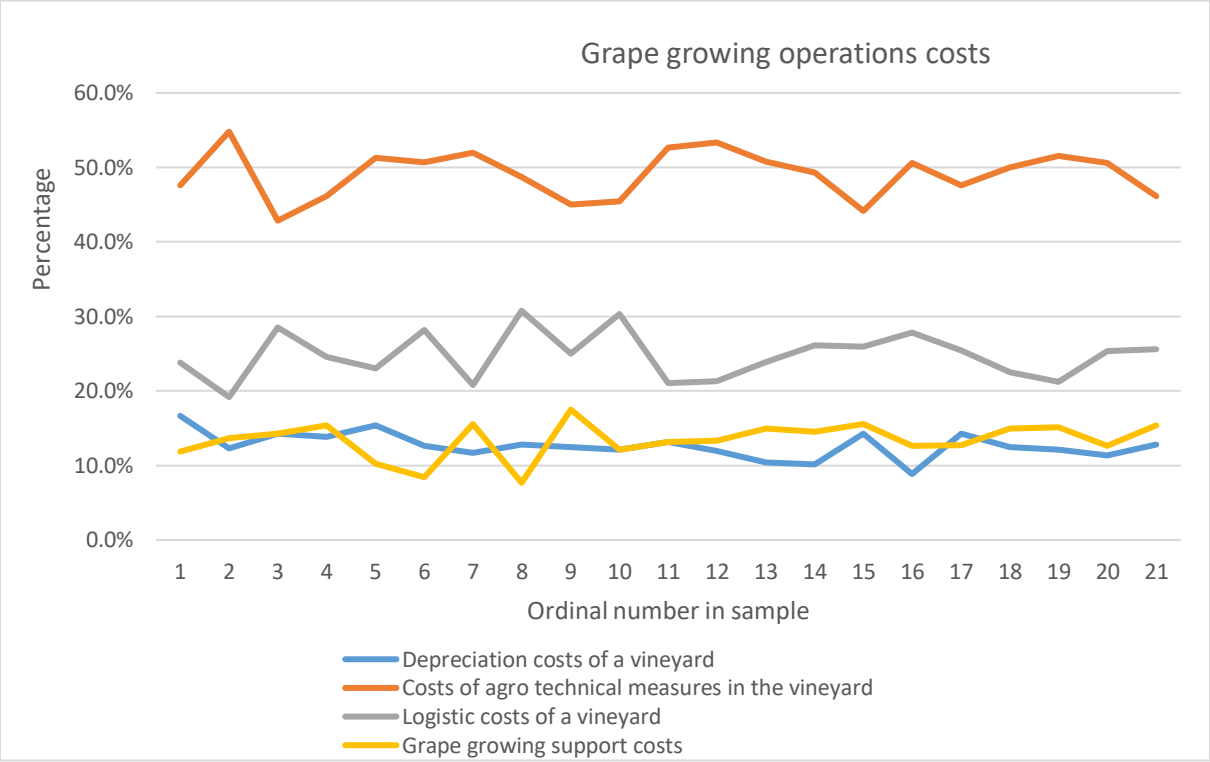


Table 3. Costs of operation in grape productions. Source: Own survey, 2020

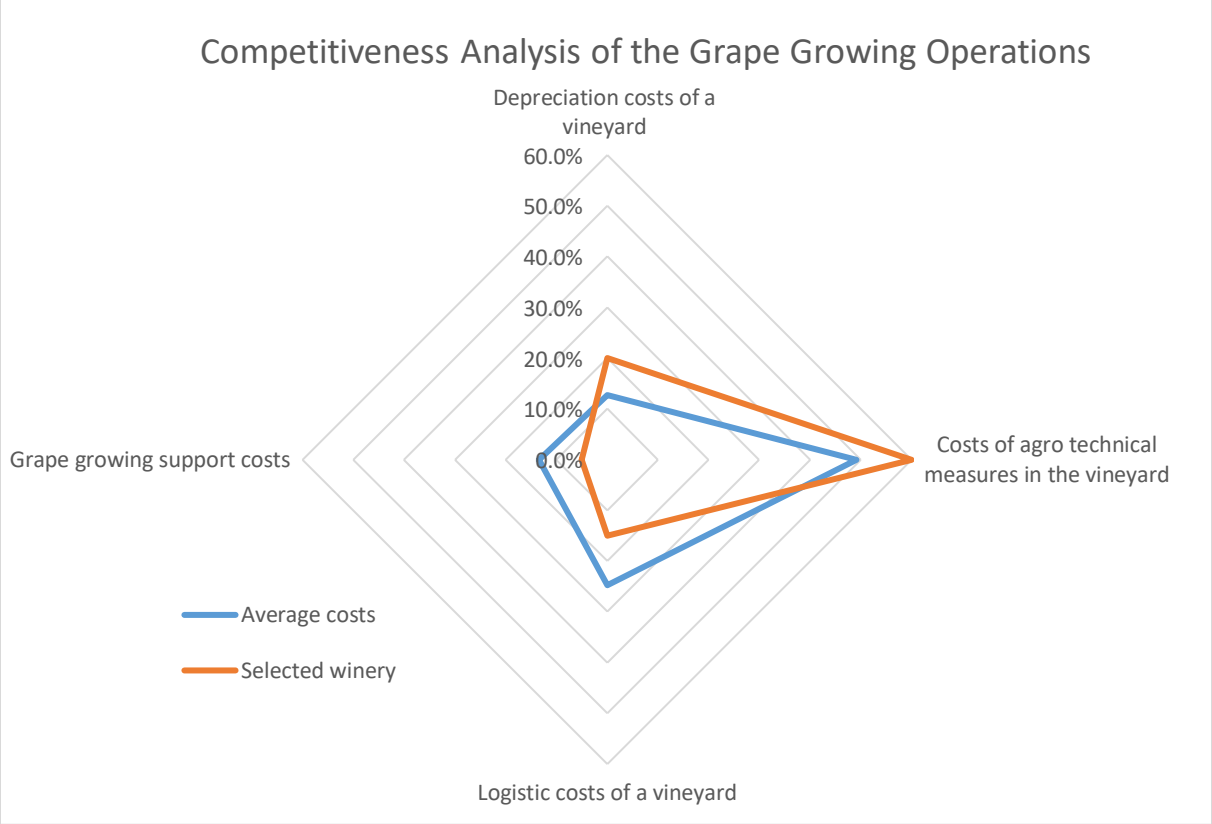
Costs of operation in grape productions	Depreciation costs of a vineyard	Costs of agro-technical measures in the vineyard	Logistic costs of a vineyard	Grape growing support costs
Average costs	12,7%	49,1%	24,8%	13,4%
Cost of selected winery	20%	60%	15%	5%

The presented average costs of grape growing basic activities, can be used as a benchmark for the advancement of business of wineries in order to increase competitiveness. In that sense, the competitiveness in regards of costs can be considered in the following way:

- If the values of winemakers' costs are within the benchmark values, it means that from the aspect of costs the winery is more competitive and should strive to keep the stated costs in that field.
- If the cost values of a winery exceed the frame of the benchmark values, it means that the characteristic winery costs are above the average cost values, and that measures should be taken for elimination of unnecessary costs and their regulation within the benchmark limits.

In order to determine the benchmark values of average costs of grape growing basic activities, the "spider" diagram has been formed, Chart 3. which contains four characteristic kinds of average costs in percentage of total costs: vineyard depreciation costs, agro technical measures application costs, vineyard logistics costs and growing support costs, represented by the red line.

Chart 3. Competitiveness analysis of the grape growing operations. Source: Own survey, 2020.



For the sake of demonstration how to advance the competitiveness of an individual winery in the chart, that is, the same diagram, the blue line was introduced. It stands for the values of four stated characteristic kinds of costs of the hypothetical winery, next to the average (benchmark costs), in the same units as the red line.

From chart it is evident that with the considered winery, two kinds of costs, agrotechnical measures costs in a vineyard and depreciation costs are within the benchmark cost values. But vineyard logistics costs and growing grapes support costs are above the benchmark values. The considered winery can advance its competitiveness by bringing the costs which are above the benchmark values, to their level.

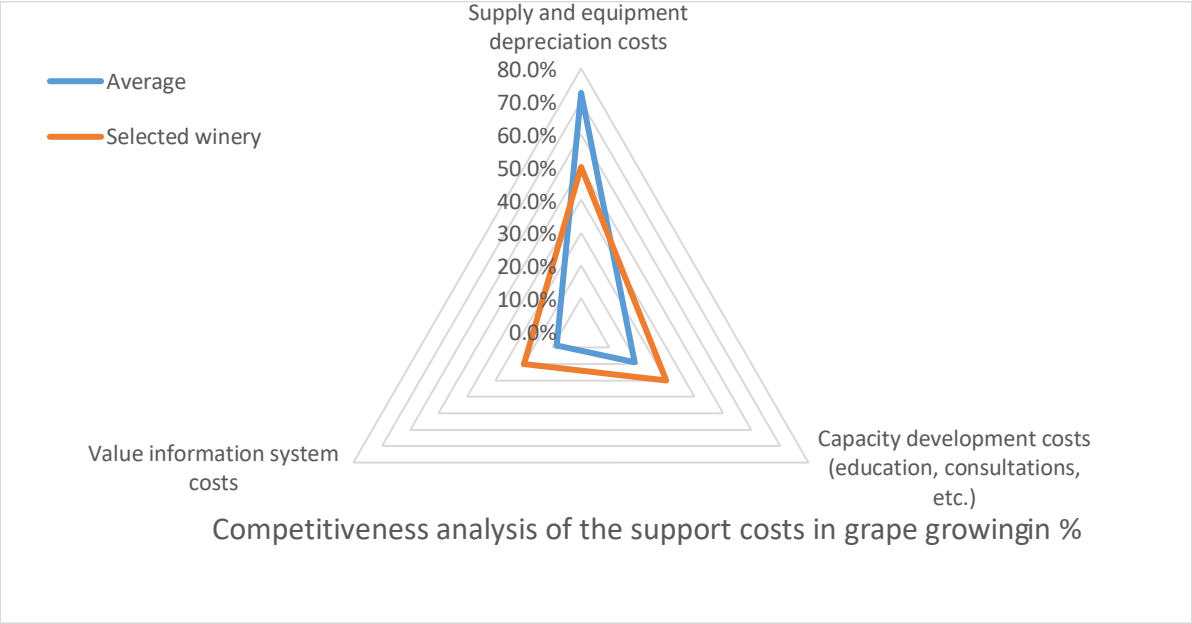
Structure analysis of the represented kinds of average support costs in the sample of wineries has shown that, from the average support costs, the highest value was of the supply and equipment depreciation costs in a vineyard 72.57 %, then the capacity development costs (education, consultations, etc.) 18.90 %, and the lowest value information system costs 8.52 %, Table 4.

Table 4. Structure of the grape growing support in %. Source: Own survey, 2020

	Supply and equipment depreciation costs	Capacity development costs (education, consultations, etc.)	Information system costs
Average support costs in %	72,5 %	18,9 %	8,5%
Support costs of the selected winery %	50%	30%	20%

Similar to the analysis of the competitiveness of grape growing operations, a tool for analyzing the competitiveness of the costs of support activities in the cultivation of grapes was created, which enables the analysis of the costs of support activities of a selected winery in relation to average values, Graph 4.

Chart 4. Competitiveness analysis of the support costs in grape growing. Source: Own survey, 2020.



From this example we can see that a selected winery has lower supply costs while other costs are higher than average values. According to the same methodology, the analysis of the costs of wine production is conducted in the research.

Conclusions

This paper briefly presents the results of a winery competitiveness analysis, which included an analysis of the relative costs of core activities as well as support activities in the sample covered. The paper presents the part concerning the analysis of the grape growing process, while due to its volume, the analysis of wine production is omitted. The analysis was made on the basis of practically conducted

research of wineries of one administrative district in the Republic of Serbia. The results obtained fully confirmed the correctness of the introduced assumptions of this research. As a result of the analysis, an effective tool (chart 3 and chart 4) has emerged that can be used to improve the competitiveness of individual wineries.

References

Drucker P. (2002). Inovacije i preduzetništvo-praksa i principi. Beograd: PS Grmeč.

Gačić M. (2016). Klasteri kao poslovni model stvaranja održive konkurentske prednosti privrede Srbije. Doktorska disertacija, UNIVERZITET EDUKONS, Fakultet poslovne ekonomije: Sremska Kamenica.

Jakšić, D., Ivanišević, D., Đokić, V., & Brabaklić Tepavac, M. (2015). Vinski Atlas. Beograd: Republički zavod za statistiku.

Krstić M, Gavrić G, Skorup A. (2018). Strategijski menadžment. Beograd: Visoka škola za poslovnu ekonomiju i preduzetništvo.

Krstić M. (2013). Upravljanje inovacijama. Beograd, Srbija: Visoka škola za poslovnu ekonomiju i preduzetništvo.

Porter M. (2008). Konkurentska prednost - Postizanje i održavanje vrhunskog poslovanja. Zagreb: Masmedia: Poslovni dnevnik.

Tipurić D. (2018). Porterov model industrijske strukture - Industrijska analiza kao ključna pretpostavka oblikovanja strategije poduzeća. Retrieved from http://www.efzg.hr/UserDocsImages/OIM/dhruska/Porterov%20model%20industrijske%20strukture.pdf, 10.2.2018

Train A, Egbu C. (2006). Maximizing the Impact of Knowledge for Innovation in Gaining Competitive Advantage. COBRA 2006., The construction and building research of the Royal Institution of Chartered Surveyors, 7-8 September 2006: University College London.

Vlahović, B. P. (2017). Savremeni trendovi na tržištu vina. Novi Sad: Poljoprivredni fakultet.

DEVELOPMENT OF SUBURBANIZATION IN EUROPE

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Abstract

At the beginning of the XXI century, it was of interest to strengthen the centrifugal nature of urban processes, called suburbanization. The development of suburbanization is related to urban growth and population growth, as a follow-up process. Developments in Western Europe largely follow the patterns of suburbanization of countries overseas (US and Canada), with over 70-80% of the population living in the suburbs or outskirts of cities. In Europe, it is difficult to define suburbanization processes due to the fact that in different countries there is a different definition of urban areas, agglomerations, urbanized areas and other socio-economic structures. On the territory of Bulgaria, the processes of suburbanization began to develop after the 1950 s and followed those of the countries of Eastern Europe. The territory and area of the country concerned is essential. The collection of information on suburbanization as an ongoing process is carried out by the UN and Eurostat statistical offices. The information provided by each country in Europe is different in the context of the above lines.

Keywords: Europe, urbanization and suburbanization.

Abstrakt

Zu Beginn des XXI. Jahrhunderts war es von Interesse, den zentrifugalen Charakter städtischer Prozesse, die so genannte Suburbanisierung, zu stärken. Die Entwicklung der Suburbanisierung hängt als Folgeprozess mit dem städtischen Wachstum und dem Bevölkerungswachstum zusammen. Die Entwicklungen in Westeuropa folgen weitgehend den Mustern der Suburbanisierung von Ländern in Übersee (USA und Kanada), wobei über 70-80% der Bevölkerung in den Vorstädten oder Stadtrandgebieten leben. In Europa ist es schwierig, Suburbanisierungsprozesse zu definieren, da es in verschiedenen Ländern eine unterschiedliche Definition von Stadtgebieten, Agglomerationen, urbanisierten Gebieten und anderen sozioökonomischen Strukturen gibt. Auf dem Territorium Bulgariens begannen sich die Prozesse der Suburbanisierung nach den 1950er Jahren zu entwickeln und folgten denen der osteuropäischen Länder. Das Territorium und die Fläche des betreffenden Landes sind wesentlich. Die Sammlung von Informationen über die Suburbanisierung als laufender Prozess wird von den statistischen Ämtern der UNO und Eurostat durchgeführt. Die Informationen, die von jedem Land in Europa zur Verfügung gestellt werden, sind im Zusammenhang mit den oben genannten Linien unterschiedlich.

Schlüsselwörter: Europa, Urbanisierung und Suburbanisierung.

Résumé

Au début du XXIe siècle, il était intéressant de renforcer la nature centrifuges des processus urbains, appelée suburbanisation. Le développement de la suburbanisation est lié à la croissance urbaine et à la croissance démographique, en tant que processus de suivi. Les développements en Europe occidentale suivent largement les schémas de suburbanisation des pays d'outre-mer (États-Unis et Canada), avec plus de 70 à 80 % de la population vivant dans les banlieues ou les périphéries des villes. En Europe, il est difficile de définir les processus de suburbanisation, car la définition des zones urbaines, des agglomérations, des zones urbanisées et des autres structures socio-économiques varie d'un pays à l'autre. Sur le territoire de la Bulgarie, les processus de suburbanisation ont commencé à se développer après les années 1950 et ont suivi ceux des pays d'Europe de l'Est. Le territoire et la superficie du pays concerné sont essentiels. La collecte d'informations sur la suburbanisation en tant que processus continu est effectuée par les bureaux statistiques des Nations unies et d'Eurostat. Les informations fournies par chaque pays d'Europe sont différentes dans le contexte des lignes ci-dessus.

Mots-clés: Europe, urbanisation et suburbanisation.

ntroduction

The urban interpretation of settlement development has relatively narrower frameworks related to spatial specificity in relation to political order, horizontal and vertical power structure, forms of government, global and regional interests, and last but not least spatial geography. At the same time, they are historically predestined as they are undergoing a continuous transformation. The structuring of several settlements forms a network of settlements that create a certain ordering in the ordering hierarchy. Thus, from a spatial point of view, the settlement network is an arbitrarily or administratively organized spatially located collection of interconnected settlements, settlements and territories, through various economic, social, infrastructural or information links. In the current Bulgarian legislation, the word "settlement" has no legal definition and is not present as a settlement. It is used through its derivatives in a number of legal terms such as “settlement area”, “settlement environment”, “settlement entities”, “holiday settlements”, “resort settlements”, “settlement structure” and others. In the Spatial Planning Act[5], Law on the administrative-territorial structure[6],Regional Development Act[7] and other regulations. According to the terminology of Spatial Planning Act, the settlements are urbanized territories and the purpose of the landed properties in them may be for: residential, public service, production, storage, resort, villa, sports and recreational functions, green areas, decorative water systems (cascades, navigable canals, etc.) transport - including bicycle lanes and the movement of people with disabilities, technical infrastructure, national security sites and others. Residents of urban areas work in the central urban area and choose to live in satellite communities called suburbs and commute to work by road or mass transport. Others have taken advantage of technological advances to work from their homes. These processes are often found in more developed economic countries, such as the United States, Canada and

[5] Refresh DV. pcs. 1 of 2 January 2001, as amended. DV. pcs. 21 of 13.03 2020
[6] Refresh DV. 63 of 14 July 1995, amend. DV. pcs. 58 of 18.07.2017
[7] Refresh DV. Issue 50 of 30 May 2008, amend. DV. pcs. 21 of 13.03.2020

Australia, which are considered to be the first countries in the world where most of the population lives in the suburbs rather than in cities or rural areas. areas. The first country where the majority of the population lives in suburban areas and suburbs rather than in central cities is the United States. Southern, Western and Northern European countries follow the example of the "colonies" by concentrating a portion of the population in newly created suburban areas or satellite cities. In the field of urbanization (urbanism) and suburbanization, developments have (Kolev, 2008); (Kalinkov, 2010); (Troeva, 2010); (Yovcheva, 2012); (Patarchanov, 2014 and 2015); (Petrov, 2015); (Bogdanov, 2016); (Kalchev, 2016); (Marinov, 2019). Other scientists are working on the subject of the mentioned topic, and their material will be the subject of our further scientific activities.

The terminology of suburbanization comes from the Latin Sub (around) and urbs (city), following the classic definition of suburbanization, it reads: ‘’displacement of population from central urban areas in the suburbs, leading to the formation of (sub) urban expansion. Suburbanization is inversely proportional to urbanization, which means that the displacement of rural populations into urban centers”.[8]

According to the Bulgarian Interpretation Dictionary, suburbanization is a process: “of inner-city migration from the central parts to the outskirts of a single settlement. It facilitates the combination of greater job opportunities in the big city with living in a more natural environment. Suburbanization is the result of agglomerations. The population, production, trade and management are decentralized without changing quantitatively”.[9]

The Russian Encyclopedia of Sociology presents suburbanization as - "the process of growth and development of the suburban area of large cities, resulting in the formation of urban agglomerations. The village is usually characterized by a higher population growth in the suburbs than in urban centers of agglomerations”.[10]

It can determine to a large extent that the process of suburbanization is increasingly inclusive and it is unlikely that this issue will be comprehensive in its scope. This gives us reason to assume a working definition of the suburbanization process, which in our view is perceived as "The process by which internal urban migration of the population from the nucleus to the peripheral or suburban areas takes place, with a view to a better and more environmentally friendly place of residence, keeping their jobs in the central parts of the city” (Marinov, 2019). Suburbanization is a term that describes the growth and spatial reorganization of the modern city. The growth of the compact city is the result of the inflow of population, housing and commercial and industrial activities to new low-density settlements. The suburbs rise from the city's historically defined boundaries, but they are often functionally dependent on urban transport infrastructure.

The definitions of suburbanization outlined have an approximate direction and an interpretation of the process of presenting, moving the population from the central parts of the city to the suburbs or suburbs. It should be noted here that in order for a process to move from the core to the periphery, a suburban area or peripheral areas resembling the urban area, but separated from the city limits, must have been created beforehand or in the process of formation. The connection between the core and the

[8] www.nationalgeographic.org/encyclopedia/urban-area/
[9] http://rechnik.info/
[10] https://dic.academic.ru/dic.nsf/socio/4050/Dictionaries and Encyclopedias at the Academic, e-edition

periphery must be through established infrastructure, above ground or underground depending on distances, the approximate number of people in labor migration moving daily from the central parts of the city to the peripheral areas of residence. Suburbs are suburbs of less average density, located outside the official boundaries of the city. The peripheral areas are located at greater distances from the city center or core. They have a lower social and economic potential, but as a result of this not-so-developed infrastructure, they have retained their natural resources, which make them attractive places to live and rest. Suburbanization is a process largely related to the development of suburban territories around large cities (population varies across borders depending on the country or region). This act of action is related to the restructuring and development of the infrastructure in cities, on the one hand there is renewal, on the other is creating a new one in the already conquered spaces. Depending on the object and the subject of the study, the functional peculiarity of the settlement network related to country studies, urbanization, local self-government, administrative-territorial organization, regional policy and others is essential to the population and settlements. Specific examples of regional policy can be given as examples of manifestation related to regional spatial mechanisms of infrastructure, investment, tax, customs, socio-demographic (naturalistic, cultural, educational, ethnic, religious) policies and the importance of urban network. Thus, the process of suburbanization has a significant impact on the location of the population.

Results

Beginning of the process, starting at the end of the XIX century and the beginning of the XX century in North America. In Europe, suburbanization began to develop rapidly and tangibly from the mid-twentieth century, spanning the countries of the northwestern continent. The countries of Eastern Europe that have fallen into the socialist bloc stay away from this process.

Using the academic methodology to characterize a particular phenomenon or process, I apply the following two invoice groups, which underlie the formation of suburbanization as an action triggered by environmental stimuli.

The first group includes direct factors - environmental (clean water, soil and air, availability of green spaces, creation of green and ecological infrastructure, etc.), social (opening of new educational, cultural, sports sites, reduction of psycho-somatic agents) and climatic (local climate).

The second group includes indirect factors - economic (creation of new jobs, creation of new financial offices, expansion of commercial and infrastructure network, etc.) political (administrative activities, creation of new environmental thinking, formation of polycentric spatial structure, etc.), demographic (even distribution of the population throughout the territory, increase in fertility and average life expectancy).

Development of Suburbanizes in Western Europe. To analyze suburbanization as a process, statistical information is needed to provide information on the urban population (UA) in the city's core (C). The difference between the population is given by internal migration or suburbanization (Sub).

Where:

UA – C = Sub

Table 1 shows the growth of part of the larger cities (agglomerations) and suburban cities (suburban areas) in Western Europe in the period 1971-2011. Indicating the population in these areas in thousands. The statistics shown in the table are based on material from the site 2015 - newgeography, Dispersion in Europe's cities. Eastern European cities were not included in the study, due to the fact that

the suburbanization process began to develop in them in the 1990s, amid political and socio-economic changes. Or, if there is one, it has evolved too slowly and again because of the above-mentioned changes in the societies of these countries.

The table shows the growth of major and suburban cities of Western Europe in the period 1971-2011. Some examples of cities in which there is a clear suburbanization that has developed over the years are given. As you can see, there are no cities from Germany and Italy, but the analysis is identical to the development philosophy and coincides with other cities on the continent.

Table 1. Core and Suburban growth in Cities in Western Europe. Source: UNO information and author calculations

Areas	**1971 Population**			**2011 Population**			**Years**	
	UA	**Core**	**Sub**	**UA**	**Core**	**Sub**	**1971**	**2011**
	Urban Areas of Europe						**percent %**	
Amsterdam	938	820	118	1,064	780	284	12,58	26,69
Athens	2,535	862	1,673	3,089	664	2,425	66,00	78,50
Birmingham	2,369	1,013	1,356	2,446	1,086	1,36	57,24	55,60
Liverpool	1,253	607	646	865	466	399	51,55	46,13
London	7,787	2,959	4,828	10,297	3,232	7,065	62,00	68,61
Lyon	1,128	507	621	1,563	491	1,072	55,05	68,59
Manchester	2,391	542	1,849	2,559	503	2,056	77,33	80,34
Oslo	643	488	155	916	599	317	24,11	34,61
Paris	8,278	2,504	5,774	10,537	2,25	8,287	69,75	78,65
Rotterdam	959	687	272	995	606	389	28,36	39,10
Stockholm	1,031	747	284	1,385	847	538	27,54	38,84
Southampton	740	213	527	857	254	603	71,22	70,36
Thessaloniki	557	340	217	754	325	429	38,96	56,90
Toulouse	476	372	104	891	447	444	21,85	49,83
West Yorkshire	1,705	506	1,199	1,787	475	1,312	70,32	73,42

From Table 1 we will analyze the last two columns, which show the percentage of the suburbanization process for the period 1971-2011 for some of the cities indicated. The difference in the old cities and industrial areas with the rest is clearly outlined in terms of the percentage of suburbanization. From 1971 to 2011, the percentage of the population living in the suburban areas was over 50%, these types of settlements had a historical time period, to develop their urban environment using the whole territory. For Birmingham, the population living in the suburban areas for the two years mentioned is more than 50%, and in 2011, the analysis reported a minimum decrease of 1,44%, there was an increase in the population living in the city center.

The situation for Liverpool is identical and in 2011 compared to the previous year, the population in the suburbs decreased by 7,42%, with an increase in the population inhabiting the city core in the same year. There is a 3,01% increase in Manchester in 2011, but it should be noted here that the city is growing

horizontally in all directions due to the fact that investment is in all structures and the core (central parts) are left behind development of business, culture, sports, arts, etc., activities focused on the social sphere. For the French capital Paris, the situation is the same as the cities mentioned above, for 2011, there is a population increase of 8,9% in the suburbanization process, but here we should note the high migration from the Union and the former colonies.

Development of Suburbanization in Eastern Europe after 1990. Exploring the process of suburbanization in Eastern European countries after 1990, first of all, we have to look back in time and see how urbanization is shaped. The process was rather strange, due to the fact that in all cities there was a developed economic activity in all its forms, but people were forced to live, most where they were born, and moving from one city to another became quite difficult. Every day people of working age move to their jobs through social transport. There was daily labor migration from one settlement to another. After the 1990s, things changed their course, cities began to grow horizontally and vertically, and actual urbanization began to develop. In Eastern Europe, it is the result of the development of cities and territories in the direction of their modernization. This process brings to the fore a number of commercial and social issues related to urban planning and political issues. Successful work in this direction increases the image of the territory, contributes to the growth of economic activity, allows to increase the investment attractiveness of the city or region, and in particular - to increase the value of land and to optimize commercial development. Thus, the entry of market mechanisms into Eastern Europe gradually leads to a change of cities (Kalinkov, 2010).

The larger of them have grounds to develop as suburbanized territories, but with the corresponding challenges and opportunities, the markets are mostly based on their consumer and demographic potential. The market has received a decisive impetus for development as the urban era begins. The city changed the role of the market in the life of mankind, turning it from one of the variants of the exchange function into a way of life and an engine of progress. The city is not a priori able to provide food, so it is becoming the center of demand for surrounding villages, which can offer surplus agricultural produce for sale in urban bazaars. History shows that bazaars are usually visited once or twice a week. Their supply required the village to have time to produce and collect food and to divert some of its labor to travel to the market. However, the growth of the consumer market has contributed to making commerce an everyday occurrence. The rapidly increasing urban demand with urbanization in practice requires an adequate and effective increase in supply and change in Eastern European countries (Petrov, 2015).

Suburbanization, as a process in post-socialist countries, has its delay or not so much opportunity for development. To a large extent, insufficient financing and development of infrastructure in all its forms halt sub-urbanization or, if there is any development, but it is in very small percentages relative to the core population (city) and the core. The high migration of children of childbearing age towards countries from Western Europe, the USA, Canada, Australia and other countries is also an obstacle and it is essential for the development of this process in the countries of Eastern Europe. On the other hand, the integration aspects of regional issues, which have been deepening over the last decades, imply that new conceptual criteria, related to the geographical aspects of the efficiency and equity and development of settlements, have to be imposed on urban development. This implies that we focus our exposition on considering the agglomeration potential of the Bulgarian national space. Cities in Eastern Europe have created conditions

for their spatial change thanks to the transformations of socio-economic and political processes. In general, major cities in Eastern Europe have emerged as strategic centers not only in the direction of global capital but also in the transnational movement of labor. In this respect, cities are seen as places for the development of a new type of political, economic and infrastructural activity. Global cities around the world are spaces where the complex process of modern civilization processes take on specific, localized forms. To a large extent, we call these localizations globalization. A large city of the present has emerged as a strategic space for the development of a number of new types of activities - political, economic, "cultural", subjective (Troeva, 2010). This is the space in which new relationships are formed, both of the "power and income of the privileged" and of the "deprived" sections of the population, where they materialize and take on specific forms (Kolev, 2008).

Development of agglomeration areas with potential of suburbanized territories in Bulgaria. In Bulgaria, the country's economic development and ongoing demographic processes have a strong influence on the territorial and settlement distribution of the population. The construction of industrial and social infrastructure, the territorial displacement and the concentration of the population led to the formation of new entities of the Functional Urban Areas type (Bogdanov et al., 2016). Characteristic of functional urban areas is that they: 1) arise on the basis of large cities or complex cities (conurbation), create significant urbanization zones; 2) They are distinguished by the territorial concentration of different industries, infrastructure and higher population density; 3) Have a transformative influence on the surrounding area, modify its economic structure and social aspects of the life of the population; 4) Show a greater degree of complexity and integration of economic activities. In practice, these processes are linked to the processes of suburbanization in the suburban territories of cities. Generally speaking, in these entities there are interconnections (exchange of functions) between the nucleus and the periphery of demographic, economic, social, transport, environmental and everyday character. Therefore, they are also characterized by the concentration of skilled personnel and the diversification of production in order to increase their efficiency and maximize the use of production and social infrastructure. In parallel with the emergence of these habitats, there may be negative consequences - pollution (destruction) of the environment, congestion of transport links (external and internal), shortage of territory and water resources, problems with the use of labor resources and depopulation of neighboring territories. Therefore, different methodological approaches and techniques should be sought to provide (from direct observation or evaluation) and analysis of information in such a territorial aspect and to limit the negative effects through appropriate mechanisms.

In recent years, two major suburbanized territories have emerged in Bulgaria, which include the capital's area and the suburbanized territory of the city of Plovdiv. These two suburbanized territories differ from the rest of the territories in Bulgaria by their spatial development of their settlements and their level of concentration. Accordingly, the Sofia and Plovdiv agglomerations are becoming the most dynamically developing territories and form the new geo-economic core of the Bulgarian state. It is important to note that they are gradually becoming suburbanized territories with a sustainable pace of economic and social development. Of course, there are also groups of problems that call for strong regional policies and partnerships between cities and surrounding areas. Mainly by seeking new forms of flexible governance in order to continue the integrated territorial development of functional areas and to pursue an innovative economy. The assessment of the potential of the two geo-economic regions of

suburbanization requires an assessment and analysis of their demographic, social and infrastructural potential (Yovcheva 2012).

The capital of the Republic of Bulgaria - Sofia is the main administrative, industrial, financial, educational and transport center of the country. It also forms the largest area with an area of 5 723 km², which makes up 5,16% of the state territory. Of the total area, 725 thousand are males and 792 thousand are females. Their relative shares are 47,8% and 52,2% respectively. The area population is 35,3% of the average annual population of the country; the density of the area is 265 people per 1 km². In addition to Sofia, the area comprises settlements of 11 separate municipalities, including the town of Pernik, which is the center of an administrative district. The city is part of the "large area" because, according to the applied criteria, it does not form its own functional area. According to statistics, nearly 23% of its able-bodied population make daily labor migration to the capital city. Pernik can be categorized as "connected cities". In 2019, the average annual population of the area is approximately 1 636 thousand. It is due to the comparatively weaker negative tendencies in the natural movement of the population and the positive mechanical growth, mainly in the city of Sofia. The fertility rate in the area, on average for the three-year period 2017, 2018 and 2019, is about 10,50 ‰, which is above the national average, but has a low total fertility rate of 1,31 children, while lower than that for the country (1,52). For the three years indicated, the average annual natural population growth is negative minus 2,19 ‰. The area is the only one with a positive mechanical gain of 4,96 ‰. As a result of migration processes to the area, the average annual population is increasing by 7500 people. The intensity of settlements in the capital city is 15,9 ‰ and the displacement 10,9 ‰. During the study period, the average annual population in the core of the area of Sofia increased from 1 370 thousand people in 2015 to 1 510 thousand people in 2018. Therefore, the population increase in the area of 140 thousand is entirely due to the increase in its center or 9,27%. Migration processes take place between the center of the area and its periphery, but compared to the large population of the area, their intensity is very low. As a gravity zone, Sofia's agglomeration is clearly centrifugal. It is formed mainly by the very functional character of the capital. We can deduce as a polycentric model of functioning: Sofia-Kazichane-Elin Pelin-Novi Han-Kostenets; the second direction: Sofia-Pernik-Radomir; third direction: Sofia-Pancharevo-Samokov; fourth direction: Sofia-Kostinbrod-Slivnitsa-Dragoman; fifth direction: Sofia-Botevgrad-Pravets. It is important to emphasize that these rays of development are characterized by daily labor migration, or we have an element of the suburbanization process. The formation of agglomeration processes within the country and Europe, develop processes of suburbanization, (Petrov, 2015).

Agglomeration as functionally connected cores and peripheral zones that change their geography, according to the development of socio-economic infrastructure, has its characteristic features - high population density and infrastructure, environmental problems of all kinds, focusing on administrative, educational and health structures. The solution to the above problems is the creation of Green (Marinov, 2019) and Smart Cities (Marinov, 2019) based on new paradigms for sustainable green infrastructure and new technologies aimed at the complete recycling of household waste and business activities.

Here is the place to distinguish between the city core and peripheral areas. The two major cities of Sofia and Plovdiv do not have distinct nuclei or central parts that are precisely defined as such from a geographical and historical position. If any, they change their geography according to the historical time period and it is difficult to determine which part is the nucleus (what territory is included and what is the

population). The periphery designation also undergoes changes as a result of its expansion and boundary changes. In the absence of clear boundaries, it is difficult to determine the exact suburbanization process. Acceptance of such is considered to be the transfer of people from the "big city" to nearby settlements or adjoining villages.

The city of Plovdiv is located in the Upper Thracian Plain, occupying the central part of southern Bulgaria. Plovdiv District and Plovdiv Municipality are the administrative center of the municipality, district and planning region. The city is part of the South-Central Economic Planning Region. It is also a municipality created by a decree of the State Council in October 1987, after the collapse of the Settlement Systems, when the neighboring municipalities - Maritsa and Rhodopes - were formed. The land boundary of Plovdiv coincides with the municipal boundary. The area of the land is 102,0 km², and half of it is occupied by the city. According to the National Census 2011 population, the population is 338 153 people, and in 2019 the number is 668 334 people. Administratively, the city is divided into six districts: East - 416,4 ha, West - 538 ha, North - 1380 ha, South - 942 ha, Thrace - 890 ha and Central - 824,72 ha.

Pursuant to Art. 36, para. 2 of the Law on the Administrative-Territorial Organization of the Republic of Bulgaria and in connection with the decision of the Council of Ministers of 7.10.2003 on determining criteria and indicators for categorization of municipalities, mayoralties, regions and settlements in the Republic of Bulgaria, with an Order of the MRDPW N RD-02-14 / 31.05.2004 the first complex functional category has been defined for the municipality of Plovdiv, and for the settlement - the first functional type according to the terms of the SPA, Plovdiv is a big city. The land of Plovdiv borders the lands of settlements from IV to VIII functional type of villages - Brani Pole, Markovo, Purvenets, Orizare, Tsalapitsa, Benkovski, Tsaratsovo, Trud, Scootare, Yagodovo, Krumovo, Brestnik from the neighboring municipalities of Maritza and the Rhodopes following belong to rural areas.

The area comprising the processes of agglomeration develops around the city of Plovdiv, which is the second largest population in the country and is an important economic, educational and cultural center. The area includes Asenovgrad with a population of 50 thousand people at the end of 2019, which, despite being one of the relatively large cities in the country, does not form its own area according to the applied criteria. The average annual population of the area over the three years is over 550 thousand people, of which 265 thousand are men and 285 thousand are women. The share of men and women is 48.1% and 51.9% respectively. 7.4% of the country's population resides within the area. The population density is 198 people per square kilometer, which is much higher than the country population - 66 people. The main city center is home to 343,000 people, or nearly 62,4% of the area's population, with a ratio of 47,7% and 52,3% for men and women, respectively. The average birth rate in the area for the three years is 10,22 ‰, which is above the national average. The total fertility rate is 1,47 children. Lower than the country's total mortality rate - its value is 12,93 ‰. For the three years, the average annual natural increase of the population is negative and amounts to an average of minus 2,70 ‰. The natural movement of the population in the center of the area is better than that of the periphery. In the city the birth rate is higher – 11,08 ‰, but the total fertility rate is lower 1,44 children. The mortality rate is relatively lower – 10,89 ‰.

Comparing these indicators for the demographic processes it is found that the city of Plovdiv has practically zero natural growth, which is expressed with a certain positivity of 0,19 ‰. Among the cities observed it is the third most important after the cities of Blagoevgrad and Burgas, which has a positive

natural increase. Everyone else has a negative growth rate. The relative shares of the youngest population among men and women in the area and its center are approximately equal and range between 13 and 15%. The total population under the age of 14 in the whole area is 13,7%, or its average annual number is 75 thousand. In the city, the population of this age amounts to nearly 48 thousand, with a relative share of 14%. The stated relative shares are higher than the total for the country.

There is no major difference in the workload levels of the working age population in the two age groups. The indicators for this dependency are 19,5% for the young population and 21% for the old population respectively. The share of young population is higher (48%) than in the area. The proportion of the poor at risk of poverty is relatively low at around 16-17%. The poverty rate is lower than the country level, about 4-5 percentage points. The risk of poverty and social exclusion before social transfers is significantly higher than 46%, compared to the country level by about 3 percentage points. The level of material deprivation for the poor in the area is approximately 42% for the period and is lower by about 2-3 percentage points compared to the same level for the country.

During the different historical periods of development of the urban environment or the central part it changed its boundaries depending on its growth. Plovdiv grew on the basis of population and socio-economic infrastructure sites, joining nearby villages (previously transformed into neighborhoods - Komatevo and Proslav). Near the city, in the 70-90s of the XX century, industrial zones were separated (the process continues today in the north-west direction), but never areas typical of suburbanization - residential areas. Suburbanization as a pure form of formation did not exist on the territory of Plovdiv Municipality. Nevertheless, the agglomeration process is typical and developing for the area in its four geographical directions.

Conclusion

The historical truth is that cities are a beautiful, complex and uncontrollable system. Any outside interference - alienation, restriction on types of construction, height, type and function - would be detrimental to the local population, though seemingly populist, correct. Most processes in cities cannot be controlled because people are different, families are different, societies, generations, classes. Thus, suburbanization processes have their own challenges for the development of modern cities. Modern cities, on the other hand, are a place for active economic activity related to the development of human civilization and the creation of a constantly modernizing urban environment. Urban development is an opportunity that enables a greater variety of professions, greater freedom of ideas and behavior. But at the same time, the city also poses a greater risk of high mortality, greater economic and political instability and the threat of poverty.

References

Bogdanov, B., I., Kalchev, V. Angelova, Iv. Glavazki, (2016), Cities and their Functional Urban Areas in Bulgaria, NSI.

Kalinkov, K., (2010) Urban Studies, Theories and Models of Urban Development and Territorial Development, Gay-Print.

Kolev, B., (2008) The National Geographic Area of the Republic of Bulgaria, Heron Press, Sofia.

Marinov, P., (2019) Changing Europe, Plovdiv, ed. Fast Print Books, ISBN 978-619-236-104-4.

Marinov, P., Toteva, D., (2019), Green settlements - bio-economic practices in waste management, 12th International Scientific Conference Digitalization and Circular Economy: Forestry and Forestry Based Industry Implication, Varna, Bulgaria, September 11-13. 2019, pp 71-81, ISBN 978-954-397-043-8 CD and 978-954-397-042-1 paper.

Marinov, P., Toteva, D., (2019), Smart Cities - New Urban Areas, Trakia Journal of Sciences, Vol. 17, Suppl. 1, pp 914-917, 2019, ISSN: 1313-7069 (print), ISSN 1313-3551 (online).

Patarchanov, Pl. end Em. Patarchanova, (2014) Contemporary Theoretical And Methodological Aspects of the Studies and Development Models of Peripheral Areas. The 6-th Edition of the International Conference “Rural Space and Local Development”, “Peripheral Rural Areas between Certain Existence and Uncertain Development”, July 23-27, Cluj-Napoca, Romania, 2014, pp. 95-100.

Patarchanov, Pl., (2015), Problems of local development of small municipalities and settlements, GSU, book 2 - Geography, T. 108, Sofia, pp. 275-286.

Petrov, K., (2015), Geo-Urban Studies and Urban Development. Ed. Farm, pp. 12-21.

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Troeva, V., (2010), A lesson in urbanism. Facilititis Magazine, Issue 1 10/2010.

Yovcheva, M., (2012) The Reality of Shrinking Cities, UACEG International Jubilee Scientific Applied Conference.

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