

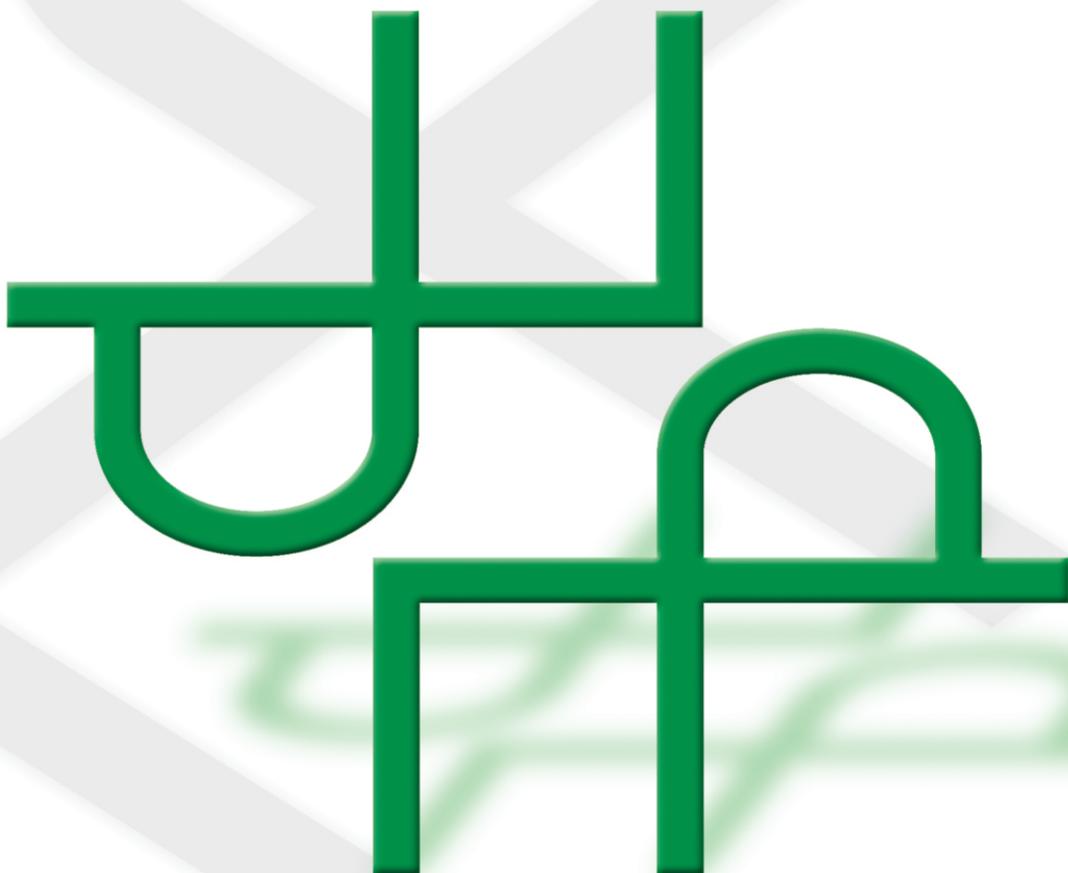
ISSN 0350-137X

UDK: 338 (497,1)

# ЕКОНОМИКА

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4



LXVI



NIŠ, 2020

МЕЂУНАРОДНИ ЧАСОПИС  
ЗА ЕКОНОМСКУ ТЕОРИЈУ И ПРАКСУ И ДРУШТВЕНА ПИТАЊА



# ЕКОНОМИКА

Часопис излази четири пута годишње

Година LXVI, X-XII 2020, број 4

ИЗДАВАЧ: Друштво економиста "Економика" Ниш  
СУИЗДАВАЧИ: Институт за економику пољопривреде - Београд, Економски факултет у Суботици, Факултет за менаџмент - Сремски Карловци, Друштво економиста Ниша, Факултет за примењени менаџмент економију и финансије МЕФ - Београд

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2. Часопис су покренули Друштво економиста Ниша и Друштво инжењера и техничара Ниша (остало као издавач до краја 1964. године). Удружење књиговођа постаје издавач почев од броја 6-7/1958. године. Економски факултет у Нишу на основу своје одлуке броја 04-2021 од 26.12.1991. године постао је суиздавач “Економике”. Такође и Економски факултет у Приштини постао је суиздавач од 1992. године. Почев од 1992. године суиздавач “Економике” је и Друштво за маркетинг региона Ниш. Као суиздавач “Економике” фигурирали су у току 1990-1996. године и Фонд за научни рад општине Ниш, Завод за просторно и урбанистичко планирање Ниш и Корпорација Винер Брокер Ниш.

3. Републички секретариат за информације СР Србије својим Решењем бр. 651-126/73-02 од 27. новембра 1974. године усвојио је захтев “Економике” за упис у Регистар новина. Скупштина Друштва економиста Ниша на седници од 24. априла 1990. године статутарном одлуком потврдила је да “Економика” има статус правног лица. На седници Скупштине Друштва економиста Ниш од 11. новембра 1999. године донета је одлука да “Економика” отвори посебан жиро-рачун.

4. Према Мишљењу Републичког секретариата за културу СР Србије бр. 413-516/73-02 од 10. јула 1973. године и Министарства за науку и технологију Републике Србије бр. 541-03-363/94-02 од 30. јуна 1994. године “Економика” има статус научног и ранг националног часописа “Економика” је почев од 1995. добила статус међународног економског часописа.

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Жиро рачун: динарски 160-19452-17

Штампа:

“MEDIVEST”

18000 Ниш

Тираж: 300 примерака

INTERNATIONAL JOURNAL  
FOR ECONOMIC THEORY AND PRACTICE AND SOCIAL ISSUES



# ЕКОНОМИКА

The Journal is issued four times a year.

Year LXVI, X-XII 2020, Vol. 4

PUBLISHER: Society of Economists "Ekonomika", Nis

COPUBLISHERS: Institute of agricultural economics - Belgrade, Faculty of Economics - Subotica, Faculty of management - Sremski Karlovci, Economic Association of Nis, Faculty of Applied Economics and Management Finance MEF - Belgrade

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Bank Account: 160-19452-17

Printed by:

"MEDIVEST"

18000 Niš

Copies: 300

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ORIGINAL SCIENTIFIC ARTICLE  
DOI: 10.5937/ekonomika2004001M  
Received: May, 28. 2020.  
Accepted: Jun, 14. 2020.

## E-WOM THROUGH THE PRISM OF SOCIO-DEMOGRAPHIC ANALYSIS OF USERS OF TOURIST SERVICES

### Abstract

*Objectives: Interpersonal influence and word-of-mouth communication represent the most important sources of information used in the purchase decision process. This form of communication has a special role and importance in tourism due to the intangible nature of products offered in this market. With the advancement in information technologies an increasing number of consumers – users of tourist services use the Internet to obtain information about a tourist destination and, at the same time, share their experiences with other consumers. In this way online interpersonal influence and electronic word-of-mouth communication are realized. The aim of this paper is to examine whether there are any significant differences in the electronic word-of-mouth effects and generation by consumers – users of tourist services in relation to their socio-demographic characteristics (gender, age, and education). Methodology: The sample included 228 respondents from the province of Vojvodina. The method of cross-tabulation was applied in order to test the hypotheses. Implications/results: Survey results provide tourism marketers with a more detailed insight into the behavior of users of tourist services with respect to their socio-demographic characteristics. Contribution: This paper contributes to further theoretical elaboration of the current phenomenon of electronic word-of-mouth in terms of explaining it through the prism of causes and effects.*

**Key words:** *tourism, e-WOM, recommendations, socio-demographic characteristics*

**JEL classification:** *M31, Z30*

## E-WOM КРОЗ ПРИЗМУ СОЦИОДЕМОГРАФСКЕ АНАЛИЗЕ КОРИСНИКА ТУРИСТИЧКИХ УСЛУГА

### Apstrakt

*Циљеви: Интерперсонални утицај и word-of-mouth комуникација представљају један од најважнијих извора информација у процесу доношења одлука о куповини. Посебну улогу и значај овај вид комуникације има у туризму с обзиром на неопипљиву природу услужног производа који се појављују на овом тржишту.*

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*Развојем информационих технологија све већи број потрошача – корисника туристичких услуга користи Интернет како би прибавили информације о туристичкој дестинацији али и поделили своја искуства са другим потрошачима. На овај начин остварује се онлине интерперсонални утицај и електронска word-of-mouth комуникација. Циљ рада је да се испита да ли постоје значајне разлике у ефектима и генерисању е-вом од стране потрошача – корисника туристичких услуга у односу на њихове социодемографске карактеристике (пол, године и образовање). Методологија: Узорак је обухватио 228 испитаника са територије покрајине Војводине. За тестирање постављених хипотеза примењен је метод унакрсног табелирања. Импликације/резултати: Резултати истраживања омогућавају доносиоцима одлука у сектору туризма детаљнији увид у понашање корисника туристичких услуга са аспекта њихових социодемографских карактеристика. Допринос: Рад треба да пружи допринос даљој теоријској грађи актуелног феномена е-вом у смислу објашњавања истог кроз призму узрочника али и ефеката овог опредељујућег фактора који обликује понашање потрошача -корисника туристичких услуга.*

**Кључнеречи:** туризам, е-WOM, препоруке, социодемографске карактеристике потрошача

## Introduction

The emergence and further development of the Internet have led to dramatic changes in the behaviour of consumers – users of tourist services. Today’s potential tourists have access to a wide range of different types of information provided by tourist organisations, companies, and other consumers (Buhalis, Law, 2008). Thus, blogs, online reviews, and social networks enable consumers to interact virtually and to share information, opinions, and experiences about different products and services (Filieri, McLeay, 2014).

This paper deals with the phenomenon of electronic interpersonal communication – e-WOM (electronic word-of-mouth) in tourism. The aim is to examine whether there are any significant differences regarding the e-WOM effects and generation by consumers – users of tourist services with respect to their socio-demographic characteristics (gender, age, and education). Following the introduction, the paper proceeds with the review of literature related to the studied phenomenon – e-WOM, explanation of methodology, research results, and the discussion and conclusion.

## Literature Review

Being a process which includes provision of information and the exchange of ideas, emotions, and experiences with the aim of achieving a particular effect, marketing communication is of huge importance in tourism (Lončarić, Ribarić, Farkaš, 2016). This is also due to the fact that tourist services are intangible and cannot be experienced and evaluated prior to purchase (Litvin et al., 2008; Philips et al., 2013). Therefore, before

choosing a tourist destination, potential users of tourist services search for information which would facilitate their decision-making process. The development of the Internet has led to the expansion of possibilities of collecting information – consumers can view comments made by other consumers as well as post their own comments, and thus participate actively in the e-WOM process (Bronner, de Hoog, 2011). In this way, the Internet supports all phases of the purchasing process – the pre-travel phase (the phase in which all activities relating to search for information and the purchase can be undertaken online), the on-travel phase (the phase in which consumers can use various interactive platforms during the travel), and the post-travel phase (the phase in which consumers “share” their experiences, opinions, and advice online) (Chung, Buhalis, 2008; Grubor, Leković, Tomić, 2019).

Jalilvand, Esfahani and Samiei (2011) define e-WOM as a positive or negative statement made by potential, current or previous users – consumers about a product, service or company, which is accessible to a wide audience through the Internet. Litvin, Goldsmith and Pan (2008) describe the e-WOM as informal communication among consumers which takes place on the Internet. Thus, e-WOM includes online reviews, recommendations and opinions (Serra Cantalops, Salvi, 2014). Unlike traditional WOM, e-WOM enables consumers to collect information from a large number of geographically dispersed and anonymous consumers (Park, Lee, 2009).

Depending on the extent of participation in e-WOM, there are several types of consumers – users of tourist services (Nonnecke, Preece, 2001; Yoo, Gretzel, 2008). The first type refers to consumers who just browse and collect information via the e-WOM, but do not contribute. The second type includes consumers who ask questions, whereas the third type comprises consumers who participate actively in the e-WOM by asking and answering questions, and sharing their opinions and experiences related to a certain product. Similarly, Lončarić, Ribarić and Farkaš (2016) identify two types of consumers in their research. The first type refers to “moderate e-WOM users”, who occasionally read other consumers’ comments and sometimes use the Internet as a source of information regarding their travel plans and destination choices. These consumers are not likely to “share” their opinion, experiences, and recommendations. The second type refers to “passionate e-WOM users”, who almost always use the Internet as a source of information, and read comments and recommendations made by other consumers. The majority of consumers belonging to this type “share” their opinion and experiences with other consumers, especially when they are extremely satisfied or dissatisfied with a certain product or service. The most common motives for “sharing” opinions and recommendations through the Internet are as follows: the desire to help other consumers choose the right product or service, and the need to publicly express the opinion about a product or service (Lee et al., 2011).

Taking into account the socio-demographic characteristics of consumers – users of tourist services, Brooner and de Hoog (2011) conclude that online comments are most frequently posted by consumers who belong to the middle class and are under the age of 55. Similarly, Lončarić, Ribarić and Farkaš (2016) conclude in their research that younger persons are more inclined to post comments and “share” their opinion, experience, and recommendation via the Internet.

## Methodology

The paper presents a part of the results of the research which aims to point to the existence of differences in frequency of making recommendations (related to the choice of tourist destination) via the Internet and social network membership with respect to gender, age, and level of education. The online enquiry was conducted in the period from October to December 2018 on a convenience sample of 228 respondents of both genders and different age and education levels in the Autonomous Province of Vojvodina. The questionnaire consisted of three parts. The first part contained questions about socio-demographic characteristics of respondents, the second part included questions related to personal recommendations, whereas the third part consisted of questions related to recommendations made by consumers via the Internet (Brooner, de Hoog, 2011). The characteristics of respondents are shown in Table 1.

Table 1. Characteristics of respondents (n=228)

Characteristics		Number of respondents (n)	Structure (%)
Gender	Male	57	25,0
	Female	171	75,0
Age	up to 30	195	85,5
	31-45	26	11,4
	46-65	7	3,1
	65+	-	-
Education	Elementary education	-	-
	Secondary education	73	32,0
	Higher education	155	68,0
Recommendations (the Internet)	Several times/day	27	11,8
	2-3 times/week	49	21,5
	2-3 times/month	49	21,5
	2-3 times/year	46	20,2
	Never	57	25,0
Social network membership	Facebook	153	67,1
	Twitter	4	1,8
	I use both networks, but I use Facebook more.	56	24,6
	I am a member of another social network.	7	3,1
	I am not a member of any social network.	8	3,5

Source: The authors' calculation

The structure of the sample shows that female respondents make up the dominant gender category (75%). A significant portion of surveyed participants are up to 30 years of age (85.5%), whereas the smallest percentage of respondents belong to the 46 - 65 age group (3.1%). The majority of respondents completed higher education (68.0%), whereas a smaller share of respondents (32.0%) completed secondary education. The most commonly reported frequency of recommendations made via the Internet refers to respondents who share them 2-3 times a week and 2-3 times a month. The majority of research participants are members of Facebook.

Based on the literature review and research aims, the following hypotheses were set:

**H<sub>1</sub>:** There are gender-related differences in the frequency of recommendations made via the Internet and social network membership, i.e. female respondents make recommendations more often and are more frequent members of social networks.

**H<sub>2</sub>:** There are age-related differences in the frequency of recommendations made via the Internet and social network membership, i.e. the respondents up to 30 years of age make recommendations more often and are more frequent members of social networks.

**H<sub>3</sub>:** There are education-related differences in the frequency of recommendations made via the Internet and social network membership, i.e. the respondents who completed secondary education make recommendations more often and are more frequent members of social networks.

The hypotheses were tested using the cross-tabulation method. The IBM SPSS 21 statistical software was employed for processing data and testing the proposed hypotheses.

## Results

A difference in frequency of recommendations (related to the choice of tourist destination) made via the Internet and social network membership according to respondents' gender is shown in Table 2.

*Table 2. Testing the independence of variables: recommendations – the Internet, social network membership, and respondents' gender*

		Gender		Total	
		Male	Female		
<b>Recommendations (the Internet)</b>	Several times/ day	Frequency	6	21	27
		% Recommendations	22.2%	77.8%	100.0%
		% Gender	10.5%	12.3%	11.8%
	2-3 times/ week	Frequency	19	30	49
		% Recommendations	38.8%	61.2%	100.0%
		% Gender	33.3%	17.5%	21.5%
	2-3 times / month	Frequency	17	32	49
		% Recommendations	34.7%	65.3%	100.0%
		% Gender	29.8%	18.7%	21.5%
	2-3 times/ year	Učestalost	10	36	46
		% Preporuke	21.7%	78.3%	100.0%
		% Pol	17.5%	21.1%	20.2%
	Never	Frequency	5	52	57
		% Recommendations	8.8%	91.2%	100.0%
		% Gender	8.8%	30.4%	25.0%

<b>Social membership network</b>	Facebook	Frequency	34	119	153
		% Membership	22.2%	77.8%	100.0%
		% Gender	59.6%	69.6%	67.1%
	Twitter	Frequency	2	2	4
		% Membership	50.0%	50.0%	100.0%
		% Gender	3.5%	1.2%	1.8%
	I use both networks, but I use Facebook more.	Frequency	14	42	56
		% Membership	25.0%	75.0%	100.0%
		% Gender	24.6%	24.6%	24.6%
	I am a member of another social network.	Frequency	2	5	7
		% Membership	28.6%	71.4%	100.0%
		% Gender	3.5%	2.9%	3.1%
	I am not a member of any social network.	Frequency	5	3	8
		% Membership	62.5%	37.5%	100.0%
		% Gender	8.8%	1.8%	3.5%

*Source: The authors' calculation*

The cross-tabulation of category variables: recommendations – the Internet and respondents' gender shows that 6 male respondents (22.2%) disseminate information about tourist products/services to other consumers via the Internet several times a day, 19 male respondents (38.8%) disseminate recommendations 2-3 times a week, 17 male respondents (34.7%) share recommendations 2-3 times a month, 10 male respondents (21.7%) disseminate recommendations 2-3 times a year, whereas 5 male respondents (8.8%) never share recommendations via the Internet. As regards female respondents, 21 of them (77.8%) disseminate information about tourist products/services to other consumers via the Internet several times a day, 30 female respondents (61.2%) share recommendations 2-3 times a week, 32 female respondents (65.3%) share recommendations 2-3 times a month, 36 female respondents (78.3%) disseminate recommendations 2-3 times a year, whereas 52 women (91.2%) never share recommendations via the Internet. The majority of male respondents disseminate information about tourist products/services to other consumers via the Internet 2-3 times a week (33.3%), whereas most women do it 2-3 times a year (21.1%), i.e. male respondents make recommendations via the Internet more often.

The cross-tabulation of category variables: social network membership and respondents' gender shows that 34 male respondents (22.2%) are members of Facebook, 2 male respondents (50.0%) are members of Twitter, 14 male respondents (25.0%) are members of both networks, but use Facebook more, 2 male respondents (28.6%) are members of another social network, whereas 5 male respondents (62.5%) are not members of any social network. As for female respondents, it can be seen that 119 of them (77.8%) are members of Facebook, 2 female respondents (50.0%) are members of Twitter, 42 female respondents (75.0%) are members of both networks, but use Facebook more, 5 female respondents (71.4%) are members of another social network, whereas 3 female respondents (37.5%) are not members of any social network. Male respondents are

most frequently members of Facebook (59.6%), the same as women (69.6%). However, female repondents are members of social networks more often.

Based on the results derived from cross-tabulation, we can conclude that women are more likely to be members of social networks, whereas male respondents make recommendations via the Internet more often. The obtained results indicate that the hypothesis  $H_1$  is partly confirmed.

The age-related difference in frequency of recommendations (related to the choice of tourist destination) made via the Internet and social network membership is shown in Table 3.

*Table 3. Testing the independence of variables: recommendations – the Internet, social network membership, and respondents' age*

		Age			Total		
		Up to 30	31-45	46-65			
<b>Recommendations (the Internet)</b>	Several times/ day	Frequency	24	1	2	27	
		% Recommendations	88.9%	3.7%	7.4%	100.0%	
		% Age	12.3%	3.8%	28.6%	11.8%	
	2-3 times/week	Frequency	42	6	1	49	
		% Recommendations	85.7%	12.2%	2.0%	100.0%	
		% Age	21.5%	23.1%	14.3%	21.5%	
	2-3 times/ month	Frequency	39	10	0	49	
		% Recommendations	79.6%	20.4%	0.0%	100.0%	
		% Age	20.0%	38.5%	0.0%	21.5%	
	2-3 times/year	Frequency	40	4	2	46	
		% Recommendations	87.0%	8.7%	4.3%	100.0%	
		% Age	20.5%	15.4%	28.6%	20.2%	
	Never	Frequency	50	5	2	57	
		% Recommendations	87.7%	8.8%	3.5%	100.0%	
		% Age	25.6%	19.2%	28.6%	25.0%	
	<b>Social network membership</b>	Facebook	Frequency	137	11	5	153
			% Membership	89.5%	7.2%	3.3%	100.0%
			% Age	70.3%	42.3%	71.4%	67.1%
Twitter		Frequency	4	0	0	4	
		% Membership	100.0%	0.0%	0.0%	100.0%	
		% Age	2.1%	0.0%	0.0%	1.8%	
I use both networks, but I use Facebook more.		Frequency	47	8	1	56	
		% Membership	83.9%	14.3%	1.8%	100.0%	
		% Age	24.1%	30.8%	14.3%	24.6%	
I am a member of another social network.		Frequency	5	1	1	7	
		% Membership	71.4%	14.3%	14.3%	100.0%	
		% Age	2.6%	3.8%	14.3%	3.1%	
I am not a member of any social network.		Frequency	2	6	0	8	
		% Membership	25.0%	75.0%	0.0%	100.0%	
		% Age	1.0%	23.1%	0.0%	3.5%	

*Source: The authors' calculation*

The cross-tabulation of category variables: recommendations – the Internet and the age of respondents shows that 24 respondents up to 30 years of age (92.3%) disseminate information about tourist products/services to other consumers via the Internet several times a day, 42 respondents up to 30 years of age (85.7%) share recommendations 2-3 times a week, 39 respondents up to 30 years of age (79.6%) share recommendations 2-3 times a month, 40 respondents up to 30 years of age (87.0%) share recommendations 2-3 times a year, whereas 50 respondents up to 30 years of age (87.7%) never share recommendations via the Internet. As regards respondents belonging to the 31-45 age group, it can be seen that 1 respondent (3.8%) disseminates information about tourist products/services to other consumers via the Internet several times a day, 6 respondents (12.2%) share recommendations 2-3 times a week, 10 respondents (20.4%) share recommendations 2-3 times a month, 4 respondents (8.7%) share recommendations 2-3 times a year, whereas 5 respondents (8.8%) never share recommendations via the Internet. Among the respondents aged 46 to 65, 1 respondent (3.8%) disseminates information about tourist products/services to other consumers via the Internet several times a day, 1 respondent (2.0%) shares recommendations 2-3 times a week, 2 respondents (4.3%) share recommendations 2-3 times a year, whereas 2 respondents (3.5%) never share recommendations via the Internet. The respondents in the age group up to 30 most frequently disseminate information about tourist products/services to other consumers via the Internet 2-3 times a week (21.5%), the respondents in the 31-45 age group 2-3 times a month (38.5%), whereas the respondents in the 46-65 age group 2-3 times a year (28.6%), i.e. the respondents up to 30 years of age make recommendations via the Internet more often.

The cross-tabulation of category variables: social network membership and respondents' age shows that 138 respondents up to 30 years of age (90.2%) are members of Facebook, 4 respondents (100.0%) are members of Twitter, 47 respondents (83.9%) are members of both networks, but use Facebook more, 5 respondents (71.4%) are members of another social network, whereas 2 respondents (25.0%) are not members of any social network. As for respondents aged 31-45, it can be seen that 11 respondents (7.2%) are members of Facebook, 8 respondents (14.3%) are members of both Facebook and Twitter, but use Facebook more, 1 respondent (14.3%) is a member of another social network, whereas 6 respondents (75.0%) are not members of any social network. As regards respondents belonging to the 46 to 65 age group, we see that 4 respondents (2.6%) are members of Facebook, 1 respondent (1.8%) is a member of both Facebook and Twitter, but uses Facebook more, 1 respondent (14.3%) is a member of another social network, whereas 6 respondents (75%) are not members of any social network. Among respondents aged 46 to 65, it can be seen that 4 respondents (2.6%) are members of Facebook, 1 respondent (1.8%) is a member of both Facebook and Twitter, but uses Facebook more, and 1 respondent (14.3%) is a member of another social network. The respondents aged up to 30 are most frequently members of Facebook (70.4%), the respondents aged 31 to 45 are members of Facebook (42.3%) as well as the respondents belonging to the 46-50 age group (66.6%), i.e. the respondents aged up to 30 are members of social networks more often.

Based on the results derived from cross-tabulation, it can be concluded that the respondents up to 30 years of age make recommendations via the Internet more often and are more frequently members of social networks. Taking into account the obtained results, it can be concluded that the hypothesis  $H_2$  is confirmed.

A difference in frequency of recommendations (related to the choice of tourist destination) made via the Internet and social network membership according to the level of education is shown in Table 4.

*Table 4. Testing the independence of variables :recommendations – the Internet, social network membership, respondents' level of education*

		Level of education		Total	
		Secondary	Higher		
<b>Recommendations (the Internet)</b>	Several times/day	Frequency	6	21	27
		% Recommendations	22.2%	77.8%	100.0%
		% Education	8.2%	13.5%	11.8%
	2-3 times/week	Frequency	16	33	49
		% Recommendations	32.7%	67.3%	100.0%
		% Education	21.9%	21.3%	21.5%
	2-3 times/month	Frequency	19	30	49
		% Recommendations	38.8%	61.2%	100.0%
		% Education	26.0%	19.4%	21.5%
	2-3 times/year	Frequency	9	37	46
		% Recommendations	19.6%	80.4%	100.0%
		% Education	12.3%	23.9%	20.2%
	Never	Frequency	23	34	57
		% Recommendations	40.4%	59.6%	100.0%
		% Education	31.5%	21.9%	25.0%
<b>Social network membership</b>	Facebook	Frequency	45	108	153
		% Membership	29.4%	70.6%	100.0%
		% Education	61.6%	69.7%	67.1%
	Twitter	Frequency	4	0	4
		% Membership	100.0%	0.0%	100.0%
		% Education	5.5%	0.0%	1.8%
	I use both networks, but I use Facebook more.	Frequency	20	36	56
		% Membership	35.7%	64.3%	100.0%
		% Education	27.4%	23.2%	24.6%
	I am a member of another social network.	Frequency	2	5	7
		% Membership	28.6%	71.4%	100.0%
		% Education	2.7%	3.2%	3.1%
	I am not a member of any social network.	Frequency	2	6	8
		% Membership	25.0%	75.0%	100.0%
		% Education	2.7%	3.9%	3.5%

Source: *The authors' calculation*

The cross-tabulation of category variables: recommendations – the Internet and respondents' level of education shows that 6 respondents who completed secondary education (22.2%) disseminate information about tourist products/services to other consumers via the Internet several times a day, 16 respondents (32.7%) share

recommendations 2-3 times a week, 19 respondents (38.8%) share recommendations 2-3 times a month, 9 respondents (19.6%) share recommendations 2-3 times a year, whereas 23 respondents (40.4%) never share recommendations via the Internet. As regards respondents who completed higher education, it can be seen that 21 respondents (77.8%) disseminate information about tourist products/services to other consumers via the Internet several times a day, 33 respondents (67.3%) share recommendations 2-3 times a week, 30 respondents (61.2%) disseminate recommendations 2-3 times a month, 37 respondents (80.4%) share recommendations 2-3 times a year, whereas 34 respondents (59.6%) never disseminate information via the Internet. The respondents who completed secondary education most frequently disseminate information about tourist products/services to other consumers via the Internet 2-3 times a month (26.0%), whereas the respondents who completed higher education 2-3 times a year (23.9%), i.e. the respondents who completed secondary education make recommendations via the Internet more often.

The cross-tabulation of category variables: social network membership and the level of education of surveyed participants shows that 68 respondents who completed secondary education (44.4%) are members of Facebook, 4 respondents (100%) are members of Twitter, 20 respondents (35.7%) are members of both networks, but use Facebook more, 2 respondents (28.6%) are members of another social network, whereas 2 respondents (25.0%) are not members of any social network. As regards respondents who completed higher education, it can be seen that 85 respondents (55.6%) are members of Facebook, 36 respondents (64.3%) are members of both Facebook and Twitter, but use Facebook more, 5 respondents (71.4%) are members of another social network, whereas 6 respondents (75.0%) are not members of any social network. Both, the respondents who completed secondary education (70.8%) and the respondents who completed higher education (64.6%) are most frequently members of Facebook. However, the respondents who completed secondary education use social networks more often.

Based on the results derived from cross-tabulation, it can be concluded that the respondents who completed higher education make recommendations via the Internet more often and are members of social networks more frequently. Taking into account the obtained results, it can be concluded that the hypothesis  $H_3$  is confirmed.

## Discussion and Conclusion

Although marketing managers in tourism strive to create a positive and attractive image of a destination, there are factors which are outside their control. One of those factors is manifested in the fact that consumers – users of tourist services interact with one another (Grubor, Leković, Tomić, 2019). In this process, which is called interpersonal communication, consumers exchange their opinions, experiences, and recommendations related to tourist destinations they have visited. In this way, consumers, both personally or via the Internet, affect the behaviour of other consumers in the process of choosing the potential tourist destination. It is marketing managers' responsibility to ensure that their consumers “go” on the Internet and “share” their experiences with other consumers, and at the same time become affected by experiences and recommendations of their peers. Additionally, with the aim of improving the tourist offer and increasing sales,

marketing managers must target consumers who consider online purchase “a good idea” (Đokić, Milićević, 2017).

Similar to findings of previous studies (Bronner, de Hoog, 2011; Lončarić, Ribarić and Farkaš, 2016), the results presented in this paper confirm the claim that males aged up to 30 who completed secondary education most frequently recommend tourist products/services to other consumers via the Internet. Furthermore, the results suggest that females aged up to 30 who completed secondary education are members of Facebook more often, and that Facebook is the social network most commonly used by respondents.

The main limitation of this paper lies in the relatively small convenience sample as well as the fact that the research was conducted only in the Autonomous Province of Vojvodina. Further research could include a greater number of respondents and cover a larger research territory, as well as look into consumers’ motives for “sharing” experiences and recommendations related to the choice of tourist destination via the Internet.

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ORIGINAL SCIENTIFIC ARTICLE  
DOI: 10.5937/ekonomika2004013M

Received: May, 17, 2020.

Accepted: Jun, 18, 2020.

## EUROPEAN MONETARY UNION AS A STABILIZING FACTOR IN THE CIRCUMSTANCES OF ECONOMIC CRISIS

### Abstract

*The authors examine the problems the European Monetary Union in the circumstances of the global economic crisis. They especially elaborated the battle for the financial stability of the European Monetary Union. The authors problematize the interaction of the European Central Bank and national central banks, emphasizing the deficiencies in the coordination of fiscal and monetary policy. They investigated the reasons that require a cautious strategy when it comes to the admission of new member states into the European Monetary Union and in that sense the conditions for nominal and real convergence. The authors consider the management of the economic crisis and the introduction of new institutions with the task to stabilize the situation in the monetary field. They explored the problems of helping countries like Greece from the point of view of the developed countries relationship. The authors especially paid attention to the level of transparency in relation to their citizens when making decisions on certain aid giving issues. They have proposed solutions for getting out of the vicious circle and the need to redesign the European Monetary Union and in this context the problem of the stabilization of the euro in order for it to be competitive with the dollar.*

**Key words:** Monetary union, economic crisis, economic growth, the euro, competitiveness, integrations, management.

**JEL classification:** E52, F45, G01, A14

## ЕВРОПСКА МОНЕТАРНА УНИЈА КАО ФАКТОР СТАБИЛИЗАЦИЈЕ У ОКОЛНОСТИМА ЕКОНОМСКЕ КРИЗЕ

### Апстракт

*Аутори истражују проблеме Европске монетарне уније у околностима светске економске кризе. Посебно су елаборирали борбу за финансијску*

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*стабилности Европске монетарне уније. Аутори проблематизују интеракцију Европске централне банке и националних централних банака, указујући на мањкавости координације фискалне и монетарне политике. Они су истраживали и разлоге због којих је потребна стратегија када је у питању пријем нових чланица у Европску монетарну унију и ушом смислу услове економске и правне конвергенције. Проблематизују ујављање економском кризом и увођење нових институција чији би задатак био стабилизовање стања у монетарној области. Истраживали су и проблеме помоћи земљама попут Грчке. Посебно су обратили пажњу на трансферентности приликом доношења јединих одлука о помоћи. Они су предложили решења за излазак из зачараног круга употребом редизајнирања европске монетарне уније. Као и стабилизације евра како би био конкурентан долару.*

**Кључне речи:** Монетарна унија, економска криза, привредни раст, евро, конкурентности, интеграције, ујављање.

## Introduction

The Monetary Union is the result of the integration and cohesion processes in the European Union that eventually became more and more profound. The economies of the European countries gradually became more interrelated, thus creating the need for a common currency. Prior to using the common currency it was necessary to adjust a common policy. The founding of the European Central Bank and the common market expressed the willingness of member states not to consider only their own interests when it comes to the EU, but to have a much broader perspective of the problems of integration. Taking into account the previous experiences, it is understandable that the EMU (the European Monetary Union) was accepted with scepticism. However, the time has shown that the euro is a stable currency despite the crisis and its consequences that are still present. The claims that the European Monetary Union was the cause or that, at least, it contributed to the crisis in the Eurozone are controversial, if nothing else. Simply, no one can deny the fact that the euro has contributed to the growth of the output, transaction costs were much lower and the allocation of capital in the Eurozone was more effective. It is obvious that the problems which have arisen in relation to the euro are rather the result of fiscal policies. Also, euro sceptics got an impulse from the fact that the monetarists deemed the euro as a currency that cannot be stable in the long run. In particular, the issue was the potential increase in aggregate output or the occurrence of losses due to the abandoning of the national currency. This problem was addressed by Mundell, who thought that it was very important for the budget to be centralized and for the transfer of funds to take place under strictly defined rules. This, in fact, means that the transfer of funds is not preceded by exhausting political bargaining (Mundell, 1961, pp. 657-665). The theory of optimum currency areas points out the common economic characteristics of the countries as a prerequisite for their successful functioning. Under the Maastricht Treaty there were certain criteria of nominal convergence that were to be met when introducing the common currency. It is clear that the EU countries are at different levels of economic development which is a problem when it comes to joining the European

Monetary Union (EMU). Namely, the last two enlargements of the European Union in 2004 and 2007 showed that only four of the twelve countries that joined the EU met the criteria regarding the introduction of a common currency, the euro. With the advent of the global economic crisis in 2008, there were serious problems with interest rates and the exchange rate. The European Central Bank had to examine the overall situation in the European Monetary Union in order to come up with a solution by a quality fiscal policy, especially when it comes to budget deficits. The point is that in such cases measures have to be taken to reduce expenditure. Such measures imply the reduction of salaries, pensions and other costs, which leads to a rapid decline in living standards of the population. In such circumstances economic science usually recommends structural reforms that should lead to a reduction of fiscal imbalances.

The aim of our work is to examine and analyse the mechanisms and ways of functioning of the EMU and regarding that, nominal and real convergence. Also, we want to point out the controversy over understanding the problems of effectiveness of the European Monetary Union. Namely, the dilemma lies in the question whether the very participation in the Monetary Union is a prerequisite for an easier exit from the crisis or, on the contrary, an independent monetary policy can more effectively respond to the economic crisis.

## **The Creation of the European Monetary Union**

The European Monetary System was showing deficiencies, so the reform was inevitable. Thus, there was a need for creating a new system and it was the EMU. Prior to forming the new common currency, the Deutschmark was the most important currency. The Central Banks of the countries which operated mostly with Germany used to implement the same measures as the German Central Bank. These countries generally disapproved of switching to the euro. However, at that time, France as the creator of the EU insisted on a consistent monetary system and even greater unity of the member states. Of course, apart from the interests of the Union, France was considering its own interests and was not willing to allow the supremacy of Germany. On the other hand, greater liberalization of capital flows was necessary for the common market program and its implementation. The point was that a constant currency conversion was not in accordance with the common market. That is why Jacques Delors openly stated in 1990 that „we need a common currency before 2000“ (Delors, 1990, p. 1). Delors had a decisive influence on the formation of the EMU, demanding from the Council to urgently bridge the barriers on the road to the EMU. Even before this process there had been some economists who claimed that the „common market with a common policy may be a sustainable in the long run only within a harmonious framework of macro and monetary policy“ (Kaiser et al., 1983, p. 13). Delors was encouraged by the attitude of Hans-Dietrich Genscher, the German minister of foreign affairs, who felt it was important to establish a common central bank and currency. As the president of the Commission, Delors had a great influence on the monetary and in general the economic policy. He cooperated with the leaders of the central banks of the member states and struggled for the idea of a common Central Bank to be accepted by them. However, the influence of Delors was not as significant as the influence of the leaders of member countries, such as

François Mitterrand and Helmut Kohl. As it was eventually becoming clear that the EMU will become a reality, Mitterrand was becoming more and more an advocate of deeper European integration that marked his political career. „Indeed, Mitterrand made the leitmotif of his presidency of out of building Europe“ (Dinan, 2010, p. 457). Mitterrand was trying to win Kohl and slowly made their relation closer and closer. “During a visit to Aachen in October 1987... Mitterrand spoke greatly about the common destiny of France and Germany. As the engine of European integrations, France and Germany have to be the leaders in a number of areas, including monetary policy (Dinan, 2010, p. 222). The German Central Bank was against this project because it was convinced that the idea represented the interests of the French and German politicians, not the economy. Kohl waited for the German Central Bank to accept the idea. Generally, Germany was not pleased with the EMU because the Bundesbank was losing its monopoly. The German Central Bank doubted whether the EMU will be capable enough to ensure stable prices.

Successful functioning of the Monetary Union, given the differences between the countries, was threatened. These differences were reflected in the levels of unemployment, inflation, then the labour market institutions, legal system, GDP growth, fiscal balance (De Grove, 2004). However, the member states were required to meet the legal and economic criteria of convergence. Article 140 of the Treaty on the Functioning of the EU defined these criteria. Upon the request of a member state, the Commission and the ECB were obliged to report to the European Council on its progress when it comes to meeting its commitments regarding the Monetary Union. The report contained information on the compliance of the Statute, the national laws and the statutes of the central banks with Article 130 and 131 of the Statute of the ESCB and the ECB. The questions of price stability and the inflation rate were also important. Of course, they should not deviate significantly from the countries with the most stable budgets (Article 126). All this implies the exchange rate stability. The criteria that are under consideration were included in the Protocol on the convergence criteria (Lučić, 2011, p. 62).

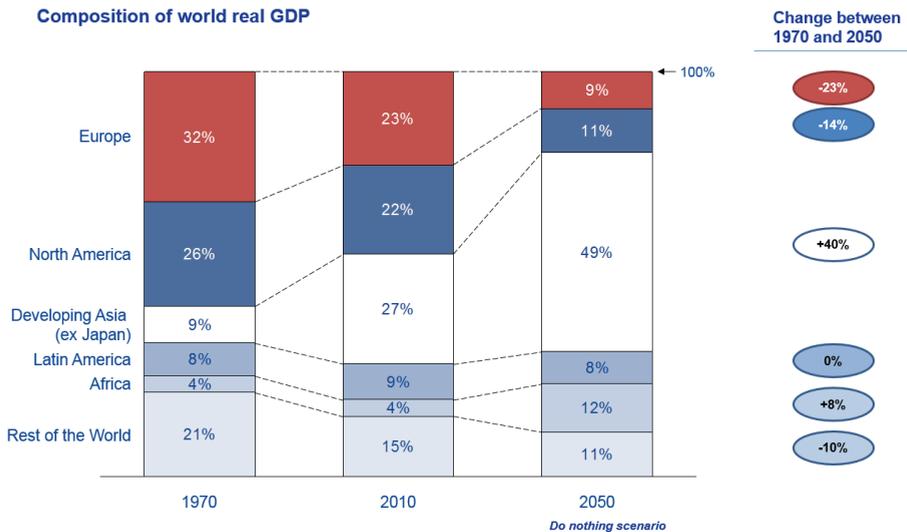
## **The European Monetary Union: Struggle for Financial Stability**

In the course of history, there were no sovereign states that voluntarily renounced their own national currencies in favour of a common currency. The introduction of the euro as a kind of experiment has remained an interesting topic for professional discussions. The point is that its introduction has political, economic and monetary dimension and significantly affects the quality of the interactions that are taking place within the framework of the European integration (Issing, 2015, p. 361-372).

With the formation of the European Central Bank, the European Monetary Union was actually building a new system, thus institutionalizing the integration processes. In this way it acquired a respectable reputation. However, the biggest problem was the harmonization of monetary policy by the ECB with the economies of the member states. By making monetary decisions, the European Central Bank reinforces the confidence of the member states in its credibility, despite the fact that certain problems may arise due to inexperience. The task of the EMU, among other things, is to stabilize the European monetary system through maintaining stable prices. „By doing so, the Euro system contributes to minimizing disruption in the allocation of resources, supports the

economic growth on the level of the productive potentials of the economies“ (Hitiris, 2003, p. 142). The European Monetary Union facilitated the functioning of the common market with its measures, so the „Common Market meant the Customs Union of the states and the functioning of the four fundamental freedoms: (1) The free movement of goods (2) the free movement of services/business environment, (3) the free movement of people and (4) the free movement of capital“ (Mintas Hodak, 2010, p. 30).

### Figure 7: Can European countries really afford not to be financially and economically interconnected and integrated?



Retrieved from Janse, K. (2016). How the financial crisis made Europe stronger? <https://www.weforum.org/agenda/2016/03/how-the-financial-crisis-made-europe-stronger/> (20.03.2019).

When the EMU was created the question was whether the management of this institution would be conducted in the right way and how it would function. The European monetary system had to respond to various challenges. „The first and most obvious was the release of the euro as a real currency in circulation in January 2002. The challenge was mainly about logistics and information. It was related to the printing of the euro banknotes, delivering of the new currency, withdrawal of the old currency... In the meantime, the Commission launched a huge campaign called ‘Euro 2002’ to inform the public and the governments conducted similar campaigns at the national level“ (Dinan, 2009, p. 479). The rejection of the national currencies and the transition to the euro proceeded according to the plan. Nothing surprising or bad happened, in fact, everything functioned smoothly. The „devices that worked on coins did not stuck, ATMs did not melt, there was no epidemic of allergic reactions to the new alloy coins spreading the Earth and no inflation bonfire was lit in the winter sky above the Eurozone“ (Beber 2002, p.77). Beber’s sarcastic sense of humour only captures the atmosphere of expectation that prevailed before the introduction of the

currency. The new currency was quickly accepted and the old banknotes forgotten. The member states had a deadline of six months to finish all transactions in the old currency. The spirit of togetherness was felt much stronger by using the common currency. This change meant even deeper European integration. The euro became a symbol of stability. However, there were also some problems. As always, human greed could not be avoided in this case, too. Namely, companies increased prices by rounding the value of the goods. However, this was insignificant compared to the benefits that the common currency brought: the cross-border competition was stricter, customers did not lose money when converting the currency, which had a positive impact on the free market. The euro is now the currency appreciated worldwide due to the economic strength of the member states. The common currency has proven to be extraordinarily useful. It affects in its way the initiation of a common competition policy which applies to banking matters. What is missing is the more explicit financial management. In many areas, the Europeans have not even started to harmonize national policies: many „contracts“ are banned in some countries while permitted in others; certain practices and speculations are encouraged in some places, while are underestimated in others (Atali, 2010, p. 131). The European Monetary Union has an important cohesive force. However, in times of crisis the Union should find a „European lender that is not the European Central Bank, nor are the national governments, nor EIB, but a new entity whose mission is to provide guarantees to European financial institutions which are in difficulty, if they are viable, and to be able to participate in their capital and to provide them with the debt in question“ (Atali, 2010, p.132). However, the problems of the European Monetary Union arise from the error „that the EU made when it deindustrialized the countries that had surrounded the Soviet Union by a shock therapy and then integrated them overnight. This proved to be the economic Achilles heel of Europe during the financial crisis“ (Rejnert, 2010, p. 184). That is way structural reforms are very important today. They should include the consolidation of debt to the various institutional mechanisms. Within the European Monetary Union, the European Central Bank could issue bonds in euros for which the guarantor would be the whole Eurozone. The yield would be lent to various Eurozone countries or the European Union countries. It is believed that such a system is productive because it allows greater borrowing (Bibow, 2015). We should bear in mind that this solution also has drawbacks because every debt has its risks that have to be taken into account when making sensitive decisions.

## **The Institutions Affecting the EMU**

Situating a common monetary policy of the member states is not possible without the European Central Bank. Its role is advisory, regulatory and executive. However, it is important to note that the European Central Bank does not only control the monetary policy of the EMU member countries, but also of countries that do not use the euro. Among other things, it participates in the process of drafting legislation, consults, it gives recommendations and opinions. Because of the nature and the importance of the work that it does, its impact on the Council is evident. The European Central Bank, given the strength of the European Union has a significant impact on the work of the WTO, G-20 and many other organizations. Therefore, resolving monetary issues on the global scale is not possible without the participation of the EU.

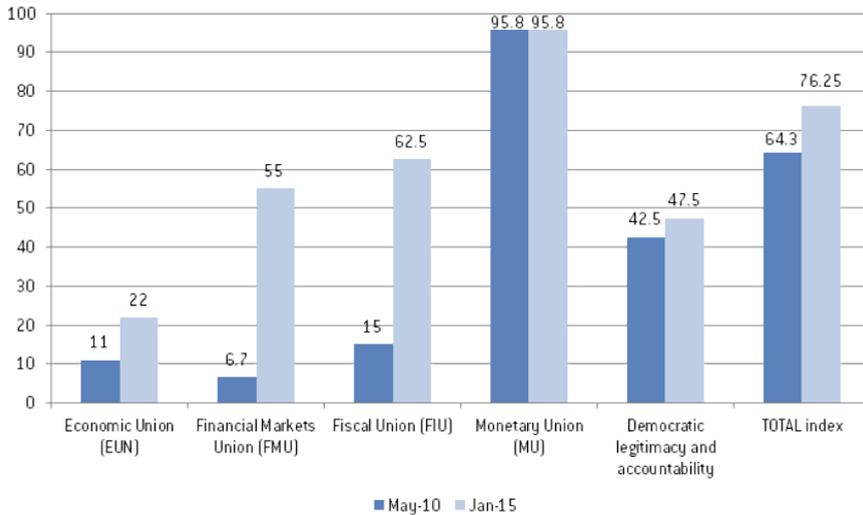
As for the interaction of the national central banks and the European Central Bank, when a state is in need of increasing the money supply, the European Central Bank has the authority to give approval. In the field of cooperation with the International Monetary Institutions, the Central Bank plays the leading role. It provides specific advice and recommendations relating the monetary policy. This cooperation does not exclude countries that do not use the euro.

Apart from the European Central Bank, the monetary policy is also affected by the European Parliament. It adopts measures essential to the functioning of the euro and, if necessary, changes the articles of the Statute of the European Central Bank. As for the Council, when adopting new regulations the Parliament has an advisory role. This does not mean that the Parliament has no right to adopt new measures together with the Council and the ECB – just the opposite, in fact.

The Council is an institution that takes care of the integration of monetary policy. With the participation of other institutions, it also provides solutions important for the overall operation of the monetary union. This means that it controls the operations of financial institutions. It particularly supervises credit institutions. In the area of fiscal discipline the Council conceives certain measures and regulations that are adopted.

The European Commission is also responsible for the implementation of the monetary policy. The Commission makes proposals and recommendations to the executive branches of the EMU, regarding the common commercial policy and markets. This is particularly true for the balance of payments. During the financial crisis in some of the EMU countries it has the power in relation to the recommendations that should be implemented in practice. It gives them to the Council and the Council further approves financial assistance and the like. Such help can be used by the countries that do not use the euro as currency. We have already stated the fact that the Commission may have an advisory role to the European Parliament and the Council with regard to amendments of the Articles of the Statute of the ESCB and the ECB. Of course, this means that it had previously received relevant regular reports on the economic situation, capital flows and the like. Every two years the European Commission submits reports to the Council on the progress of each member country. The European Commission requests the opinion and regular reports from the European Financial Committee in regard of the economic and financial situation in the EU, which also includes financial relations with third countries. This is primarily true for the movement of capital. Usually, after consulting the European Financial Committee, the Commission makes recommendations to the Council to extend the aid to the member states but also to deny it if it does not lead to the desired result. The European Commission makes proposals regarding possible amendments to Articles of the Statute and the Council adopts them. The Commission's role is important if there is an imbalance of payments and proposes protective measures that the Council should approve in accordance with Article 143 TFEU (Georgieva, 2011, pp. 76-77). The European Monetary Union should work on expanding the existing European institutions. Thus, the European Investment Bank in addition to focusing on credit projects for infrastructure, environment and climate change, should have a wider role, which would be reflected in the additional recapitalization (Stiglic, 2016, p. 275). All the mentioned institutions can affect the functioning of the EMU and the potential problems occur due to their imperfections.

Progress made under various headings according to the Index of European institutional integration (EURII):



Retrieved from Terzi, A. (2015). *How should we coordinate economic policy in the Eurozone*. <https://www.weforum.org/agenda/2015/10/how-should-we-coordinate-economic-policy-in-the-eurozone/>

## The Condition of the Real and Nominal Convergence

In order to understand better the problems that arise on the road towards monetary unification (especially when it comes to new member state) we should point out the criteria that are they obliged to fulfil in order to achieve nominal and real convergence. In addition to what is defined in the theory of optimal currency areas (mobility of production factors, the level of trade openness, the quality and level of integration of financial markets, the flexibility of prices and wages, the alignment of business cycles and the like) (Mongelli, 2002, p. 5), the degree of convergence achieved by the member states of the European Union is also very important. It is about the nominal and real convergence of the member states. On the other hand, we must bear in mind that the „EU structure was being built long and patiently. The basic approach of its foundation was the functional approach. The member states transferred only a small part of their jurisdiction to the Union, which kept their integrity and sustainability of the Union, often at the expense of the efficiency of operation. The introduction of the EMU was a tectonic shift in the process. National independence in the conduct of monetary policy was submitted to the ECB. On the other hand, appropriate mechanisms of coordination with other economic policies were not established. In a word, there were no institutions in the EMU to offer successful response to asymmetric shocks“ (Grbić, Todić, 2014, p. 28). This is precisely the problem of the European Union because a number of countries did not comply with the convergence criteria, especially when it comes to the budget deficit and public debt growth. This reflected the shortcomings of an institutional nature

and, of course, political. The point is that if the economy was to be asked, the states would have to adhere to certain rules of supranational institutions. However, this involves the transfer of jurisdiction when it comes to fiscal sovereignty, which is usually politically disapproved. The importance of coordination between fiscal and monetary policy can be seen from the difficulties of central national banks of a number of the EU member states to maintain the targeted level of inflation. Of course, the difficulties arise from the fact that the monetary authority is not able to control all the instruments essential to inflation and exchange rates. Certain problems come from the fact that when we talk about the European Union, we talk about a heterogeneous set of fiscal policies. What does this mean? The leaders of the developed countries such as the UK, Germany, France and Denmark reasonably pose a question why their citizens should pay and save the member states that are in trouble? The obvious example is Brexit or the UK leaving the European Union. Although its reasons for this decision are complex, sometimes controversial, this is one of the most frequently mentioned examples. Part of Catalonians' dissatisfaction derives from similar reasons, only on the inner level (Catalonia is the most developed part of Spain). We should not forget that even the developed countries have their budget deficits, with the difference that they are capable of financing them. However, this does not mean that if the current practice extends for some time, they won't become illiquid.

All new EU member states are obliged to introduce the euro as a common currency, but that does not mean that they will soon become members of the European Monetary Union. For that, they have to meet certain conditions (criteria) to achieve nominal and, accordingly, the real convergence. Namely, after the establishment of the ECB, the convergence reports are within its jurisdiction and are always available on its website. The ECB does not support the practice of introducing the euro without the procedure, although, for example, Montenegro is not a member of the EU and has accepted the euro as its currency. It is one of the paradoxes that was initiated by politics and unfortunately, Atlantic geo-strategy which only suggests that the European Union is not independent. For the successful functioning of the Monetary Union, we need to know that it is very important that there are no major differences between the countries in terms of inflation and unemployment. Also, there should be no disbalance when it comes to labour markets. There should be no differences in the legal system, either in the rate of GDP growth, nor in the fiscal system. The founding Agreement suggests criteria of economy's convergence that the EU member states have to fulfil to be eligible members of the EMU. For their reception, it is important for them to fulfil both the conditions of legal and real convergence. Practice has shown that the optimum period of joining the EMU is after ten years of EU membership. When it comes to the criteria for real convergence, the analysis of the fulfilment of the conditions and the procedure itself are determined by Article No. 140 of the Treaty on the Functioning of the EU. Namely, at the request of a Member State that did not meet the benchmarks, the Commission and the ECB report to the Council every two years on its progress. The report analyses the degree of sustainable convergence, which includes: price stability, then inflation rate, which should not differ significantly from the level of inflation in the three most stable Member States. Fulfilling the conditions of economic convergence also implies sustainable budgetary finances. The deficit should not be higher than that established by Article 126. Fluctuations in the exchange rate must be normal. This implies that for at least two years there has been no devaluation of the national currency against the euro. The achieved convergence must

be stable, as can be seen from the level of long-term interest rates. These criteria are still monitored and elaborated, that is, the achieved results related to market integration, balance of payments, movement of labour costs and price index are examined. Thereafter, there is a debate in the European Parliament and the European Council where, on the proposal of the Commission, a decision is made whether the deviation member has fulfilled the conditions of economic convergence. The agreement on the European Union which was concluded in Maastricht in 1992 stated all the conditions that had to be met in order for a member of the European Union to enter the European Monetary Union. The first and the basic condition is that such countries must have stable prices. In other words, the inflation rate should not exceed 1.5% compared to the three countries with the most stable prices. The requirement is that this should be for a year prior to the admission in the EMU. The second condition is that the budget deficit does not exceed 3% of GDP. It is obvious that special attention is paid to fiscal discipline. In this context, the public debt must not exceed 60% of GDP. The third and no less important condition is related to the stability of the exchange rate. There should be at least a two-year participation in the exchange rate mechanism with respect to fluctuations of +/- 15% against the euro and finally, long-term interest rates must not exceed 2% of interest rate in the three EU countries that had the most stable prices in previous year (European Communities - Council, 1992). As for the ECB's convergence report, it analyses the level of sustainable economic convergence as well as the compatibility of national legislation with the Agreement. If it is found that it is OK, the NCBs may become an integral part of the Eurosystem. Article 130 of the Agreement regulates the adjustment of national legislation which allows the independence of the Central Bank. When assessing legal convergence, not only the formal side is crucial, but also the provisions that comply with the spirit of the Agreement Statute. When it comes to compatibility, the ECB also makes conclusions as to whether the legislation complies with the secondary legislation of the Union. Namely, it should bear in mind that it also has a primacy in relation to national legislation. Article 124 of the Treaty on the Functioning of the EU prohibits any measure that allows or encourages privileged access to financial institutions. The ban on monetary financing is aimed at achieving price stability. The exception is Article 2 of the Special Regulation (Regulation EC No 3603/93). This article provides that the NCB can finance liabilities to the IMF and approve the so-called night loans to the public sector with a 24-hour return period. Based on the ECB's Convergence Report, it can be concluded that there are frequent deviations from the reference values for the criteria of economic convergence and the non-compliance of national legislation with the EU Treaty on the Functioning. This incompatibility of national legislation also applies to the Statute of the ESCB and the ECB. However, when it came to adopting the Agreement on the stability, this change was explicitly opposed by the Czech Republic and the United Kingdom. After Brexit, it is clear why the United Kingdom had done so. On the other hand, the Czech Republic has skilfully managed to avoid fulfilling the Maastricht criteria for years, regardless of the fact that it was obliged to join the European Monetary Union. Something similar is done by Sweden because its citizens have been opposing this form of economic integration for many years. The European Union and the Eurozone face controversy as well as the crisis. The reasons are many, but the most important is the poor management of the crisis, which has led to distrust of the citizens in the deeper integration of the member states. The effect of meeting the conditions of nominal and real convergence did not ensure

the expected EMU stability, hence the amended Stability and Growth Pact was amended and adopted. The aim was to help Union resist the crisis in the most successful way. Subsequently, a Stability Agreement was adopted, which represents an upgrade of the aforementioned Pact. This very Agreement caused a lot of controversy as it anticipated the abolition of the independent and supervisory function of the parliaments. Despite its adoption, this Agreement only distanced the Member States from each. All this shows that the controversy will only multiply after the Brexit, that is when the United Kingdom leaves the European Union.

## The Economic Crisis and the EMU

The emergence of the economic crisis gripped the world and affected functioning of most institutions. In this context, the crisis has shown that the EMU requires a sort of redesign, if it is to succeed. We have to bear in mind that there has always been a “quiet disagreement” between some individual member states and the Union. The problems emerged due to the rotten compromises. Namely, the member states have transferred parts of their jurisdiction that did not encroach on their integrity but also the credibility of the Union or, as some authors noted „the secrecy of the Union“ (Grbić, Todić, 2014, p. 28). It is this shadowy side that is slowly crumbling institutions of the Union, in particular those concerning the financial sector. That’s why a modern financial regulation is needed. What does this mean? In the recent years, with the growth of the economic crisis the opinion prevailed with some researchers that deregulation is to blame for such situation. It was thought that the free and often chaotic market economy caused the problems rather than regulated them. However, one should not forget that practically there was no financial deregulation before the crisis occurred, at least when it comes to the European Union. Legislation that would, for example, separate commercial from investment banking was lifted. But the laws that were passed afterwards only increased the scope of regulation and made the functioning of the financial institutions even more bureaucratic. „As bureaucracy does, the regulation also grows exponentially. One regulation leads to another“ (Tasić, 2016, p. 141). Thus, with the advent of the crisis, representatives of the European Union realized that something had to be done with the redesigning of the EMU, so in 2010 the decision was made to establish the European financial stability facility (EFSF). The initial capital of the EFSF amounted 750 billion euros. The amount of the fund was decided by the European Council in 2011. The IMF participated in the financing of the fund with 250 billion euros under its own terms. On one hand, this meant reducing the public debt and achieving budget savings, and on the other, doing the same with social benefits, benefits for health care, pensions and wages and then increasing indirect taxes especially those on value added tax (Kuenzel, 2011, pp . 7-14). The motives for the IMF to participate in the establishment of the Fund show that it was more about eliminating the symptoms rather than the causes. Namely „macroeconomic measures -aimed directly at the budget, deficits and debt... have led to economic decline, recession and depression that afflict Europe“ (Stiglic, 2016, p. 210). However, such a policy and participation in the Fund has, as we have already said, the shadowy side because „the creditor states, such as Germany, do not want their taxpayers to learn about the cost that may be imposed to them; they would like their citizens to believe that they would be paid

off, although this is practically impossible“ (Stiglic, 2016, p. 210). This type of the EMU redesign has not proved to be effective since the crisis has not passed yet. The reductions in current account deficits of vulnerable countries like Greece, Portugal, Spain, etc. are more a result of falling demand than the result of the EFSF establishment. The IMF did not take long to come to a conclusion about the importance of introducing tax measures. In fact, if they are poorly designed the results will be reflected in a decline of revenues, which means that a solution to the crisis cannot be expected in this manner. The request of the Fund for some countries to reduce their deficit is a complex and often unmanageable job when it comes to countries like Greece. No common fund within the redesigned European Monetary Union could reduce the unsustainable and large deficit that had been „cherished“ for years. A simple recipe of the Fund creation did not mean that the states would be financed without certain conditions, such as austerity programs, reducing costs and increasing taxes. Everything in the economy is a cause-consequence event. The fact that savings usually slow the economy and decrease revenues was underestimated, while at the same time certain expenditures of social nature rise, such as those for unemployment insurance and various types of assistance to those in need. We also tend to oversee the fact that such problems cause affected people to oppose the integrations (the growth EU scepticism). Obviously, this good intention has not delivered the expected results. The fund itself has its economic function but it cannot save endangered countries from the crisis. This type of redesigning the European Monetary Fund, despite the huge funds, could not solve the accumulated problems. On the other hand, the market as we know it today produces socially unacceptable levels of inequality. In this way, instead of healing an economy, it undermines it. It is obvious that even within the frames of monetary policy it is important to try to redesign the European monetary institutions to compensate for the gained advantage of the intergenerational type (Stiglic, 2015, p. 425-448). In doing so, one should take into account the fact that the European Monetary Union implies the existence of a common central bank. But the problem is that forming of the Monetary Union with countries that have high inflation reduces welfare of the countries with low inflation. Hence, institutionalism means consideration of all relevant issues that can be resolved if those in charge of the constitutional design study them well and adopt new laws that will be appreciated by all.

Prior to the outbreak of the crisis the euro was publicly promoted as a significant and stable currency and it was even speculated that in the foreseeable future it could „replace the US dollar as the preferred reserve currency, with all the political and economic impact that would bring. It will take time for these levels of optimism and confidence to return and the reorganization of the euro will imply surrendering greater national control to the European Central Bank and to a group of financial agencies. However, the benefits of the common currency will always exceed its costs, and the revived and changed euro will have an added advantage in the fact that it will be managed by those who have gone through a deep learning curve and have developed a better understanding of its limitations and possibilities“ (McCormick, 2015, p. 170). It is obvious that premature conclusions and euphoria are not recommended in the economy.

## Conclusion

The successful functioning of the Monetary Union requires a continuous work on reducing the differences between the member states (in terms of unemployment, inflation, the labour market institutions, legal system, GDP growth and fiscal balance). All this cannot be achieved without the quality work of the institutions that affect the EMU. The European Monetary Union adjusted monetary policy by formation of the European central bank and thereby strengthened the trust of the member states. The European Monetary Union affected the quality of functioning of the common market with its measures. The Euro as a common currency contributed to the tightening of cross-border competition, the customers did not lose on currency exchange, and the free market functioned better. It is necessary to improve financial management to solve better the accumulated problems. This includes the harmonization of national policies. Certain practices in speculations that have proved productive over the management mechanisms should be continuously improved. Providing mobility in the European financial institutions is also one of the priorities. It is believed that in the European Monetary Union, the European Central Bank can issue bonds in euros for which the guarantor would be the whole Eurozone.

The condition of the nominal and real convergence is important because the given criteria secured reaching higher level of real convergence. This requires ensured stable prices, the level of inflation and the amount of the budget deficit that cannot be exceeded, fiscal discipline and exchange rate stability.

The European Union and the Eurozone are facing a deep crisis, so there was a need for better management, which led to the adoption of the amended Stability and Growth Pact. The abolition of the independent and parliamentary control has caused certain controversy. Brexit was followed by other complex issues.

With the advent of the economic crisis there was a need to redesign the EMU. This is how the European financial stability facility (EFSF) was formed. The IMF also took part in its formation. The largest creditors like Germany were not transparent to their citizens for the fear that their taxpayers would not agree with that. Thus, the controversy about how to manage the crisis magnified. However, the problem has remained because the market continues to produce socially unacceptable levels of inequality. Those responsible for constitutional design are yet to enact new laws that will be appreciated by everyone and that would guarantee better results.

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ORIGINAL SCIENTIFIC ARTICLE  
DOI: 10.5937/ekonomika2004029D  
Received: September, 25. 2020.  
Accepted: October, 18. 2020.

## INSTITUTIONAL OWNERSHIP AND FIRM VALUE: A STUDY ON BIST MANUFACTURING INDEX

### Abstract

The aim of this research is to test the relation between institutional ownership and firm value. To accomplish this aim, data from 104 firms listed in the BIST (i.e. Borsa Istanbul) industrial index between 2006 and 2018 have been used. Studies on the structure of ownership have problems with endogeneity. In order to avoid these problems, this study adopted Durbin-Wu-Hausman test with advanced econometric techniques, Ordinary Least Squares (i.e. OLS), and Two-Stage Least Squares (i.e. 2SLS). As a result of the simultaneous equation system improved in this study, a positive relation between institutional ownership as an *endogenous* variable, and firm value has been located. Besides, it has been found that institutional investors are more interested in the firms that have a higher market performance.

**Keyword:** Institutional Ownership, Firm Value, Endogeneity

**JEL Classification:** G34

## ИНСТИТУЦИОНАЛНО ВЛАСНИШТВО И ВРЕДНОСТ ФИРМЕ: ИСТРАЖИВАЊЕ BIST ИНДЕКСА ПРОИЗВОДЊЕ

### Апстракт

Циљ овог истраживања је да се испита однос између институционалног власништва и вредности предузећа. Да би се постигао овај циљ, коришћени су подаци 104 предузећа наведених у БИСТ-у (тј. Бурса Истанбул) индустријски индекс између 2006. и 2018. Студије о структури власништва имају проблема са ендогеношћу. Да би се избегли ови проблеми, ова студија је усвојила Дурбин-Ву-Хаусманов тест са најредним економетријским техникама, обичним најмањим квадратима (тј. OLS) и двостепенним најмањим квадратима (тј. 2SLS). Као резултат побољшаног система истовремених једначина у овој студији, пронађена је позитивна веза између институционалног власништва као ендогене променљиве и вредности фирме. Поред тога, утврђено је да су институционални инвеститори више заинтересовани за фирме које имају веће тржишне перформансе.

*Кључна реч:* Институционално власништво, вредност фирме, ендогеност

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## Introduction

Institutional investors support today's financial markets significantly, and emerge as an essential part of equity markets (Gillan & Starks, 2003). Institutional investors have an important role, not only in developed markets but also in developing markets in the world. It is estimated that more than 50% of the shares of the firms listed in the Stock Market of London belong to institutional investors. Similarly in America, around 5% in 1945, 8% in 1950, 33% in 1980, 45% in 1990, 60% in 2003, and 67% in 2010 of these firms were owned by institutional investors, and the shareholding of institutional investors is increasing continuously (Blume & Keim, 2012). Institutional investors manage more than 45 billion dollars of all financial assets, and more than 20 billion of this constitutes of equities. Therefore, institutional investors became more effective and distinguishable in important firm decisions of firms (IMF Report, 2005; Tahir, Saleem & Arshad, 2015).

Traditionally, institutional investors are not directly involved in corporate management decisions. Instead, when they are not satisfied with the stock performance and administration, they can find a way out such as selling the stakes (Bathala, Moon & Rao, 1994). For institutional investors who own a significant proportion of a firm, it costs less to sell the stock than having a controversy with the management in case of a poor stock performance (Coffee, 1991; Charfeddine & Elmarzougui, 2010). One of the incentive factors for the institutional investors to inspect management is the size of the shareholders. If institutional investor shareholdings are high, an institutional investor has a stronger incentive to monitor a firm's management. On the contrary, if the institutional investor holds few shares of the firm, it has less incentive control, and it can easily liquidate its portfolio when the firm performs poorly (Maug, 1998).

Institutional investors, when compared to other types of investors, are more interested in corporate management; because they have a significant ownership of equity, and they attempt to influence the top management for the management of the long-term interests of shareholders (Holderness, Kroszner & Sheehan, 1988; Brickley, Lease & Smith, 1998). In other words, it is possible that institutional investors take on a more effective monitoring role in the corporate governance arena. As a result, institutional investors may further influence top-management decisions, and, accordingly, on the firm performance (Charfeddine & Elmarzougui, 2010; Chaganti & Damanpour, 1991).

Pound (1988) studied the effects of institutional ownership on firm performance. In this study, he offered three hypotheses about institutional investors and firm performance, which are “*Efficient-Monitoring Hypothesis*”, “*Conflict of Interest Hypothesis*”, and “*Strategic-Alignment Hypothesis*”. In *Efficient-Monitoring Hypothesis*, it is expressed that institutional investors have more expertise, and they can monitor the management with lower costs than small atomistic shareholders. Therefore, this argument predicts a positive relation between institutional ownership and firm performance. Indirectly, this suggestion assumes that the only relation between firms and institutional shareholders is an investment. Conflict of Interest Hypothesis means that institutional investors will be forced to vote in support of the management because of profitable businesses in firms. For example, an insurance company can hold a significant portion of a firm's stock in a firm while working as the main insurance company for the same firm. If it votes for the opposite, although there is no penalty for not supporting the management, it can have a crucial (negative) effect on business relations of the firm. *Strategic-Alignment Hypothesis*

means that the institutional investors and the managers are in cooperation based on their reciprocal benefits. Generally, this cooperation reduces the beneficial impacts of the inspections by large shareholders (Bhattacharya & Graham, 2009: 371-372). In conclusion, Conflict of Interest Hypothesis and *Strategic-Alignment Hypothesis* argue that there is a negative relation between institutional ownership and firm performance.

Studies that invest the relation between institutional ownership (INST) and firm performance have distinctive findings. There exist various studies which have found positive, negative and insignificant relations between INST and firm performance or firm value. In local literature, there is no study that investigates the relation between INST and financial performance or firm value. In global literature, the relation between financial performance and INST has been studied, however, the problem with endogeneity has been ignored by most of these studies. This study contributes to the local and global literature by testing the relation between firm value and INST in a large data set taking the endogeneity problem into consideration. It will also inform and guide the firms in BIST. Furthermore, the findings of this current research will help the top management who focuses on decreasing company bankruptcies, protecting the shareholders' welfare, and providing institutional managerial reforms. Therefore, this study is a crucial one for the field.

In this study, the relation between institutional ownership and firm value will be researched. This study has used data from 104 firms listed in the BIST industrial index between 2006 and 2018. Studies on the structure of ownership have problems with endogeneity. In order to avoid these problems, this study adopted Durbin-Wu-Hausman test (DWH), Ordinary Least Squares (i.e. OLS), and Two-Stage Least Squares (i.e. 2SLS)

This paper consists of five main sections. This first part has introduced the theoretical background and the rationale of the study. The second part summarizes the studies which investigate the relation between INST and financial performance, followed by the third part on methodology. The fourth part presents the results of OLS and 2SLS regression. The final part makes a general conclusion of the study, and gives insights for the future studies.

## Literature review

When studies on ownership structure are reviewed, researchers such as Kuznetsov and Muravyev (2001), Oxelheim and Randøy (2003), Cheung et al. (2007), Lam and Lee (2008), Lee (2009), Reyna and Encalada (2012), Alimehmeti and Paletta (2012), and Kang and Kim (2012) found that ownership structure is influential on financial performance. On the contrary, some other researchers such as Jacob and Salomonsson (2004), Beiner et al (2006), Choi, Park and You (2007), Rose (2007), Wang ve Clift (2009), Arosa, Iturralde and Maseda (2010), Vo and Phan (2013), and Cook (2013) argue that ownership structure is not influential on financial performance.

Institutional investors are suppose to be one of the important actors in the market. Despite that, there are studies that locate a positive or negative relation between INST and firm performance. Besides, there are studies that investigate the effects of institutional ownership on *accounting and market-based* indicators, or earning management. These studies will be summarised below.

Pound (1988) tested the relation between institutional ownership and firm value in 100 firms listed in the USA adopting regression method. As a result of this study which uses the data between 1981 and 1985, he claims that the mentioned ownership has a positive effect on the firm performance when the institutional investors observe and monitor the firm efficiently. However, he also states that institutional investors damage the firm performance when they behave according to their own benefit and interest. Similarly, McConnell and Servaes (1990) researched the effects of institutional ownership on firm value. As a result, they found a positive relation between INST and firm value. They proposed that institutional investors have to monitor inspect and force the management, in order to improve the market value of the firm to the max.

In their study, Chaganti and Damanpour (1991) examined the effects of institutional ownership on firm performance in 80 firms listed in the USA between 1983 and 1985. The results of the analysis indicate that institutional ownership has a positive effect on ROE. They associate these findings with that institutional investors monitor the firms effectively. Another study conducted by Lowenstein in the same year (1991) found a low correlation between INST and firm performance.

Agrawal and Knoeber (1996) tested the relation between institutional ownership and firm performance by examining the data of 383 of the biggest 500 firms in the USA, with OLS method. As a result of the models developed in this study, no significant relation was found between INST and firm performance. Despite that, Han and Suk (1998) pointed to a positive relation between INST, and stock returns and performance indicators.

Duggal and Millar (1999) examined the effects of institutional ownership on firm performance from the perspective of the firms in the S&P 500 index using data between 1985 and 1990. According to the estimated results of the model, there is an insignificant relation between INST and firm performance. Other studies by Craswell, Taylor, and Saywell (1997), Faccio and Lasfer (2000), and Mollah, Farooque and Karim (2012) also came up with similar results.

Clay (2001) examined the relation between institutional ownership and firm value in 8951 firms listed in the USA, using OLS and 2SLS methods. As a result of the model developed in this study, it is discovered that institutional ownership has a positive and significant effect on Tobin's Q which is used for measuring firm value. Similarly, Tsai and Gu (2007) found that there is a positive relation between institutional ownership and Tobin's Q which is an indicator of market performance. Moreover, they also state that the firm performance increases when the institutional investors monitor the management.

Using inclusive data from 27 countries, Ferreira and Matos (2008) searched the role of institutional investors in the world. Using Three-Stage Least Squares method, they found a positive relation between INST and firm performance. They argue that the higher number of institutional ownerships, the higher firm value, and the better operational performance. They also found that firm performance is influential on institutional ownership. Despite this, Bhattacharya and Graham (2009) researched the effects of institutional ownership on firm performance using the data of Finnish firms. They asserted that the institutional investors who have investment and business connections with these firms have a negative effect on firm performance.

Elyasiani and Jia (2010) researched the relation between institutional ownership stability and firm performance. In this study, they used data from 1532 firms between

1992 and 2001. They suggested that shareholding proportion and shareholding stability are important for monitoring effectiveness of the institutional investor. They also suggest that long-term institutional investors are influential on a better firm performance.

In their study on 35 firms listed in the French stock market between 2001 and 2006, Charfeddine and Elmarzougui (2010) examined the relation between INST and firm performance. Empirical results of this study show that institutional ownerships have endogeneity, and they support the discussions on endogeneity in the previous ownership structure.

Fazlzadeh, Hendi and Mahboubi (2011) conducted a research on the effects of institutional ownership on firm performance in 137 firms listed in the Iranian stock market between 2001 and 2006. As a result of the analysis, they observed that institutional investors affect the firm performance in a positive way. Studies by other researchers such as Guercio and Hawkins (1999), Smith (1996), Nesbitt (1994), and Demiralp, D’Mello, Schlingemann and Subramaniam (2011) reveal similar results.

Ruiz-Mallorqui and Santana-Martin (2011) examined the effect of bank and investment fund ownership on the firm value for the firms listed in Securities Stock Market of Spain. As a result of the analysis, investment fund ownership was found to have a positive effect on firm value while bank ownership was found to have a negative effect on firm value.

Alfaraih, Alanezi and Almujaed (2012) studied the effect of institutional ownership on firm performance based on data from 134 firms listed in Securities Stock Market of Kuwait. In consequence of the regression models developed for this study, they found a positive relation between INST, and Tobin’s Q and ROA. Similarly in 2012, Fauzi and Locke examined the effect of ownership structure on financial performance in 79 firms listed in Securities Stock Market of New Zealand between 2007 and 2011. As a result of this study, institutional ownership was found to have a positive effect on firm performance.

Mokhtari and Makerani (2013) inspected the relation between institutional ownership, and earning management and firm value in 50 firms listed in Securities Stock Market of Tehran between 2009 and 2011. The results of the analysis indicate that there is a positive relation between earning management and INST, while there is an irrelevant relation between firm value and INST.

Thanatawee (2014) studied the relation between firm value and INST in 323 firms listed in Securities Stock Market of Taiwan between 2007 and 2011. The results of the analysis show that there is a positive relation between domestic INST and firm value; however, the same results also show that there is a negative relation between international INST and firm value. Similarly, Hsu and Wang (2014) found that the increase in the stability of institutional ownership is closely related to a better financial performance for the firms listed in Securities Stock Market of Taiwan. They relate these results to the fact that long term institutional ownership is useful for the firm as INST monitors and controls it.

Arouri, Hossain and Muttakin (2014) found a positive relation between INST and bank performance in countries which are members of the Gulf Cooperation Council (GCC). Despite that, Zouari and Taktak (2014) located a negative relation between INST and bank performance for Islamic banks in the country.

Al-Najjar (2015) conducted an empirical study on the relation between INST and financial performance of 82 firms out of the finance sector, between 2005 and 2013. Panel

data analysis is used in this study, and ROA and ROE are used as indicators of financial performance. As a result of the fix effect model, no strong relation was detected between INST and firm performance. On the other hand, Saleem and Arshad (2015) conducted a study on 21 Pakistani firms in Securities Stock Market of Karachi30 index who were out of the finance sector between 2008 and 2013. They guessed the effect of institutional ownership, on ROA and ROE with the aid of OLS and 2SLS methods. As a result of the models developed in this study, a positive and significant relation between INST and financial performance has been observed. Finally, Masry (2016) investigated the effects of institutional ownership on firm performance in 73 firms listed in Egypt between 2007 and 2014. As a result of the regression model, it was found that institutional ownership positively affects firm performance.

Tsouknidis (2019) investigated the relationship between corporate investor and firm performance on shipping companies listed on the US stock exchange. As a result of the analysis revealed a negative relationship between the percentage of institutional ownership and firm performance, which is primarily attributed to non-strategic rather than strategic institutional investors. Sakawa and Watanabe (2020) investigated the impact of corporate shareholders of Japanese companies operating between 2010 and 2016. As a result of the analysis found that institutional shareholders contribute to enhancing sustainable firm performance and constructing sustainable corporate governance mechanisms in a stakeholder-oriented system.

## Methodology

### Aim of the Research and Research Questions

The two main aims of this study on the relation between institutional ownership and firm value are:

1. To examine the effect of institutional ownership on firm value.
2. To examine the effect of firm value on institutional ownership.

To meet these aims, this study will seek answers for the following questions:

1. What is the role of institutional ownership on increasing the firm value?
2. What is the role of firm performance for institutional investors?
3. What is the role of systematic risk and percentage for institutional investors?

### Data Set

In this study, data from 104 firms in BIST (Borsa Istanbul) manufacturing index between 2006 and 2018 was used. Besides, only firms listed in the BIST manufacturing index are used, for the generalisability of the findings, and in order to maintain the uniformity of the tables that will be used. The financial data of the firms which were analysed were obtained by Finnet financial analysis programme. The data about institutional ownership is obtained from the Central Registry Agency.

### Variables

For this study, seven variables were used in total. One of these variables is the Tobin's Q rate which is used to measure the firm value. Dividend payout ratio and Beta

parameter are used to define if these indicators are effective on institutional ownership. Debt ratio, firm size, and firm age are included in the study as control variables.

**Table 1** Variables Used in Analysis

	<i>Definitions</i>
Institutional Ownership	<i>The percentantage of outstanding shares held by institutions.</i>
Debt ratio( <i>DEBT</i> )	<i>The debt rate in the total assets.</i>
Firm Size ( <i>SIZE</i> )	<i>The natural logarithm of total assets.</i>
Firm Age( <i>AGE</i> )	<i>The gap between the year of foundation and the current year.</i>
Dividend Payout ( <i>DIV</i> )	<i>Dividend is divided by Net Profit.</i>
Systematic Risk ( <i>BETA</i> )	<i>Beta coefficient. The covariants of market profit and share profit are divided by the variant of market profit.</i>
Tobin's Q Rate ( <i>TOBIN</i> )	<i>The proportion of the firm's market value to its book value.</i>

### Hypotheses

The literature review has shown that institutional ownership and financial performance indicators are related. For the firms listed in the BIST industrial index, institutional investors can affect the firm value positively if they efficiently monitor the firm. However, the mentioned ownership structure may harm the firm value if the institutional investors behave according to their own benefit and interest. Moving from here, this study has developed the following hypotheses:

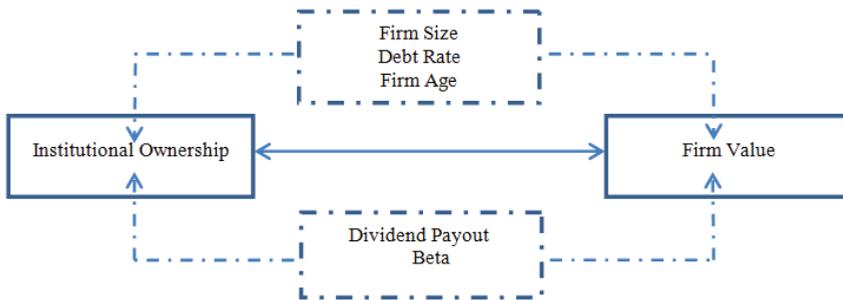
$H_1$ : *Institutional ownership is effective on firm value.*

Tahir, Saleem and Arshad (2015) has found that firm performance has a positive effect on INST. On the contrary, Charfeddine and Elmarzougui (2010) stated that there is a negative relation between INST and financial performance. Moreover, Elyasiani and Jia (2010) claimed that shareholding proportion and shareholding stability are important for monitoring effectiveness of the institutional investor, and that long term institutional investors are related to a better firm performance. In the light of this information, the following hypotheses are developed:

$H_2$ : *Firm value has a positive and significant effect on institutional ownership.*

### The Model of the Research and the Theoretical Background

Based on the literature review and variables described above, the theoretical background of the study is shown below:



**Figure 1** Theoretical Framework

Source: Authors

In order to test the hypothesis of this research, the following models are developed using OLS and 2SLS methods.

$$TOBIN = \alpha + \beta_1 INST + \beta_2 DEBT + \beta_3 SIZE_i + \beta_4 AGE + E_1$$

$$INST = \alpha + \beta_1 TOBIN + \beta_2 DEBT + \beta_3 SIZE + \beta_4 AGE + \beta_5 DIV + \beta_6 BETA + E_2$$

### Research Method

The data used in this study carry features of stable panel data because it covers 10 year-long data from 104 firms. The data used in this study are analysed with Stata 11.0 programme. In this study, initially, descriptive statistics, t-test, and correlation analysis are used. For the unit base analysis, Fisher ADF Base Test is used. As a result of this test, it was found that the variables are appropriate for econometric analysis. The existence of endogeneity problem is tested with Durbin-Wu-Hausman test. After this, OLS and 2SLS methods are used

### Endogeneity and Durbin-Wu-Hausman Test

In this part of the study, the relation between institutional ownership and financial performance are tested considering the possible endogeneity problem. In other words, institutional ownership may be effective on financial performance, or firms with high financial performance may be preferred by institutional investors. In order to understand this situation, Durbin-Wu-Hausman (DWH) test is used.

Some researchers such as Demsetz (1983), Loderer and Martin (1997), Cho (1998), Holderness, Kroszher and Sheehan (1999), and Demsetz and Villalonga (2001) studied the relation between ownership structure and firm performance, and as a result, they state that the variables in ownership structure carry problems with endogeneity. Similarly, in this study, the variable of institutional ownership is used as an endogeneous variable. In most of the studies that researched the relation between institutional ownership and firm value, Tobin's Q rate is used as a dependent variable (Clay, 2001; Bhattacharya and Graham, 2009; Alfariah, Alanezi and Almujaed, 2012; Mokhtari and Makerani, 2013). Besides, Durbin Wu-Hausman test is used in the mentioned studies in order to measure the relation between Tobin's Q Rate and institutional ownership, and locate the endogeneity problems (Tsai &Gu, 2007; Charfeddine&Elmarzougui, 2010; Thanatawee, 2014; Tahir, Saleem& Arshad, 2015). In order to test the speculative endogeneity variable, the following models are developed, and the rest are recorded as (INST\_res).

$$INST = \alpha + \beta_1 TOBIN + \beta_2 DEBT + \beta_3 SIZE + \beta_4 AGE + \beta_5 DIV + \beta_6 BETA + \beta_7 INST\_res$$

$$TOBIN = \alpha + \beta_1 INST + \beta_2 DEBT + \beta_3 SIZE + \beta_4 AGE + \beta_6 INST\_res + E_3$$

If the t statistical value is different from null and is statistically significant after the *INST\_res* coefficient equation is recorded, it shows that OLS results are biased and inconsistent, and means that 2SLS has to be implemented. On the other side, OLS results are unbiased and consistent, and means that 2SLS cannot be implemented (Cong, 1999).

## Findings

This part of the study covers the empirical findings on the relation between institutional ownership and firm value measured by regression models.

**Table 2** Descriptive Statistics

	Mean	Median	Std. Dv.	Min	Max	N
<i>Variables</i>						
Institutional Ownership	0.247	0.194	0.212	0,00	0.982	1352
Debt ratio	0.419	0.407	0.205	0,02	0,892	1352
Firm Size	19.72	19.58	1.392	16.2	23.83	1352
Firm Age	40.20	41.00	11.89	9,00	79,00	1352
Systematic Risk	0.675	0.688	0.210	0.03	1.860	1352
Dividend Payout	0.261	0.112	1.298	-23.0	16.08	1352
Tobin's Q Rate	2.022	1.253	3.921	0,17	74.59	1352

Table 2 shows the descriptive statistical results of the variables used for the analysis. The mean Tobin's Q rate of the firms listed in the BIST industrial index, and are examined for the analysis is found to be 2.01. This rate was calculated to be 1.53 for English firms by Guest (2009), 2.11 for Indian firms by Saravanan (2012), 3.08 for American firms by Obradovich and Gill (2013).

The mean for the other variable of this study, which is institutional ownership, is calculated to be 24.7%. Charfeddine and Elmarzougui (2010) calculated the INST mean as 57.1% for 35 firms listed in the French stock market between 2002 and 2005. Fazlzadeh, Hendi and Mahboubi (2011), on the other hand, calculated the INST mean as 56.91% for 137 firms listed in the Iranian stock market between 2001 and 2006. Outside of the finance sector, Thanatawee (2014) calculated the same rate as 41.65% for 323 firms listed in the Taiwanese Stock Exchange Market. Najjar (2015) defined that the mean of institutional ownership is 44.32% for 82 firms out of the finance sector in Jordan between 2005 and 2013. Finally, Fazlzadeh, Hendi and Mahboubi (2011) found that the mean of INST for 21 firms in the Pakistan stock market 30 index was 26.43%. Deriving from the countries and firms mentioned above, it is seen that firms in the BIST industrial index have the lowest rate of institutional ownership.

**Table 3** The Results of T-Test

Variables	Institutional	N	Mean	Std.	Mean	Sig.
	Ownership			Dv.	Difference	
Debt ratio	Below	560	0,410	0,191	-0,0159	0,252
	Above	560	0,426	0,219		
Firm Size	Below	560	19,64	1,444	-0,0588	0,522
	Above	560	19,70	1,345		
Firm Age	Below	560	41,58	10,21	2,558	0,000
	Above	560	39,02	12,35		
Tobin's Q Rate	Below	560	1,892	1,992	-0,2651	0,272
	Above	560	2,157	5,151		
Dividend Payout	Below	560	0,285	0,092	0,0481	0,542
	Above	560	0,237	1,454		
Systematic Risk	Below	560	0,652	0,229	-0,046	0,001
	Above	560	0,698	0,223		

In Table 3, the t-test results related to institutional ownership structure are given. In this table, the rate of institutional ownership is divided into two groups, based on its place according to the median (19.4%); below or above. It is also decided if there is any difference between these two groups according to the variables used. There is a statistically significant difference between the two groups according to firm age and systematic risk variables. The firms that have a higher institutional ownership than the medium are younger, and have less systematic risk. Besides, although it is not statistically significant ( $P=0,283$ ), the firms that have higher INST than the medium have a higher Tobin's Q rate than the ones that are lower.

**Table 4** Correlation Analysis

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
[1] Institutional Ownership	-						
[2] Debt ratio	,184	-					
[3] Firm Size	-,014	,067	-				
[4] Firm Age	-,075	-,019	,212	-			
[5] Tobin's Q Rate	,055	,137	-,094	,028	-		
[6] Systematic Risk	,060	,061	,114	-,095	,002	-	
[7] Dividend Payout	-,055	-,089	,075	,061	-,003	-,003	-

Table 4 shows the results of correlation analysis that shows the relation between INST and firm value. When the correlation results are examined, there is a positive relation between Tobin's Q rate and INST, leverage rate and firm age while there is a

negative relation between Tobin's Q rate and firm size. Moreover, there is a positive relation between INST and systematic risk and leverage rate; however, there is a negative relation between INST and firm age. At the same time, there is no significant relation is observed between the independent variables in the correlation table. This increases the reliability of the model.

**Table 5** DWDH Test Results for Institutional Ownership

	Coefficient	Std. Dv	t-statistics	p-value
Independent Variables				
(Constant)	2.022	1.822	-30.02	0.258
Institutional Ownership	16.20	2.91	5.22	0.000
Debt ratio	-0.398	0.723	-0.53	0.687
Firm Size	-0.285	0.075	-3.45	0.000
Firm Age	0.038	0.012	3.76	0.000
<i>INST_res</i>	-16.88	3.03	-5.53	0.000

$H_0$ : Variables are external.

$H_1$ : Variables are internal.

Table 5 shows the results of DWH test. It is understood from these results that statistical value is different from null ( $t = -5.76$ ,  $p = 0.000$ ) for *INST\_res* variable, and it is statistically significant. According to the results of the test, the variable is internal, and the  $H_0$  is denied. The 2SLS regression results give unbiased and consistent results for the internal variable, INST.1

**Table 6** DWDH Results for Tobin's Q Rate

	Coefficient	Std. Dv	t-statistics	p-value
Independent Variables				
(Constant)	-9.85	1.61	-6.22	0.000
Tobin's Q Rate	1.551	2.40	6.45	0.000
Debt ratio	-4.22	6.75	-6.21	0.000
Firm Size	0.55	8.23	6.18	0.000
Firm Age	-0.02	5.71	-5.56	0.000
Systematic Risk	-1.39	1.42	-0.89	0.345
Dividend Payout	4.55	119,2	0.02	0.906
<i>TOBIN_res</i>	-1.55	2.38	-6.22	0.000

$H_0$ : Variables are external.

$H_1$ : Variables are internal

Table 6 shows the DWH test results, and the results indicate that the t statistical value for *TOBIN\_res* variable is different from null ( $t = -6.10$ ,  $p = 0.000$ ), and is statistically

significant. According to the results, the variable is internal, and the  $H_0$  is denied. The 2SLS regression results give unbiased and consistent results for the internal variable, Tobin's Q rate.

**Table 7** Regression Results of Performance Equation

Variables	OLS		2OLS	
	t-statistics	p-value	t-statistics	p-value
Institutional Ownership	2.12	0.044	<b>3.92</b>	<b>0.000</b>
Debt ratio	4.35	0.000	<b>5.88</b>	<b>0.000</b>
Firm Size	-3.59	0.000	<b>-2.75</b>	<b>0.005</b>
Firm Age	2.15	0.0381	<b>2.85</b>	<b>0.003</b>
C	3.48	0.000	1.01	0.205
F statistics	11.66	0.000	13.01	0.000
Adjusted R <sup>2</sup>	0.044		<b>0.047</b>	

In Table 7, there are the OLS and 2SLS results that show the relation between INST and firm value (Tobin's Q Rate). It is seen that Model F statistical rate is statistically significant, and the model has sufficient illustration power. Furthermore, around 4% of the change in Tobin's Q rate is explained by the independent variables. When the results of both methods are examined, institutional ownership as an independent variable makes a positive and statistically significant contribution to the firm value. In other words, the increase in the institutional ownership affects the market performance of the firms positively.

There is a positive and statistically significant relation between Tobin's Q rate, and the other variables which are leverage rate and firm age. Notwithstanding, there is a negative relation between firm size and Tobin's Q rate. These results overlap with most of the earlier studies.

**Table 8** The Regression Results of Institutional Ownership Equation

Variables	OLS		2OLS	
	t-statistics	p-value	t-statistics	p-value
Tobin's Q Rate	2.31	0.044	<b>3.32</b>	<b>0.000</b>
Debt ratio	4.52	0.000	<b>5.85</b>	<b>0.000</b>
Firm Size	0.28	0.754	<b>1.03</b>	<b>0.385</b>
Firm Age	-1.99	0.045	<b>-2.89</b>	<b>0.003</b>
Systematic Risk	1.93	0.084	<b>1.85</b>	<b>0.087</b>
Dividend Payout	-1.02	0.202	<b>-1.12</b>	<b>0.252</b>
C	3.75	0.000	2.41	0.019
F statistics	17.20	0.000	16.75	0.000
Adjusted R <sup>2</sup>	0.0452		<b>0.0435</b>	

In Table 8, the factors that define the institutional ownership are estimated by OLS and 2SLS methods. It is seen that Model F statistical rate is statistically significant, and the model has sufficient illustration power. Furthermore, around 4.26% of the change in institutional ownership is explained by the independent variables. When the results of both methods are examined, there is a positive relation between institutional ownership and firm value. In other saying, when the market performance increases, institutional ownership increases as well.

There is a positive and statistically significant relation between INST and other variables which are systematic risk and leverage rate. Despite that, there is a negative relation between firm age and INST. At the same time, dividend payout rate and firm size are not effective on institutional ownership.

## Results and conclusion

Institutional investors are important actors in the market. The share of institutional investors in the stock market of developed countries is over 60%. For example, it is around 70% in the USA, and 60% in England and France. In countries that are relatively less developed (e.g. Iran, Jordan, and Taiwan), the share of institutional investors is over 50%. Notwithstanding, in Turkey, the share of institutional investors in the firms in the BIST industrial index is around 25%. This can be explained with the fact that most firms in BIST are family businesses, and the capital is held by a particular group, family, or administrative board.

In this study, the relation between INST and firm value are examined. In this research, data from 104 firms listed in the BIST industrial index between 2006 and 2018. The relation between INST and firm value are tested keeping the endogeneity problem in mind. In other words, while institutional investors can increase the firm value, firm value can also increase the share of institutional investors. In order to understand this, DWH test is implemented. As a result of this test, it was understood that institutional ownership is an internal variable, and 2SLS regression results are unbiased and consistent.

As a result of the simultaneous equation system developed in this study, it was found that firm value is effective on institutional ownership. In other words, good firm value can increase the number of institutional investors, and institutional investors become more interested in firms with high market performance. There is a positive but not so statistically significant relation between the other variable of the model -systematic risk- and INST. It can also be claimed that the systematic risk and volatilities of the shares are important for institutional investors. Another variable in the study which is has a positive and significant effect on institutional ownership. In other words, when the rate of foreign resources in entities increases, the amount of institutional ownership increases too. However, dividend payout rate and firm size has no effect on institutional ownership. There is a negative relation between the last variable (i.e. firm age) and INST. That is, INST decreases as the firm age increases. The results of the t-test also support this finding. This situation can be associated with the possibility of the firm becoming a family business as it gets older, or with the increase in the fund concentration.

There are some limitations in this study which examined the relation between institutional ownership and firm value. Initially, the results should be interpreted

according to the BIST industrial index. Besides, the dependent and independent variables used for this study are the other limitations of the study. Further studies can be conducted considering other performance indicators such as return-on-assets, return on equity, earning management, bankruptcy risk, etc. Moreover, further studies can make a distinction between domestic and foreign INSTs, or establish the stability of institutional investors to test their distinctive effects on firm performance. Finally, the effect of different ownership types such as CEO, foreigner, family, government, etc. on financial performance can be researched keeping the endogeneity problem in mind.

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ORIGINAL SCIENTIFIC ARTICLE  
DOI: 10.5937/ekonomika2004047J  
Received: April, 17. 2020.  
Accepted: Jun, 22. 2020.

## AN APPROACH FOR E-LEARNING COURSES EVALUATION BASED ON THE EDAS METHOD

### Abstract

*The development and increasing use of information and communication technology and the Internet as well, have facilitated access to educational materials and increased the popularity of e-learning courses. The increase in the number of e-learning courses imposes the need for evaluating their quality. As a result, the criteria and procedures for evaluating the quality of e-courses are becoming increasingly important. Therefore, the use of the EDAS method for evaluating the quality of e-courses is discussed in this paper. The four e-courses are assessed against the seven evaluation criteria obtained on the basis of the literature review. The evaluation process is performed in the group decision-making environment with the aim of obtaining more reliable results.*

**Keywords:** EDAS, MCDM, group decision-making, e-learning, content, quality

**JEL classification:** C44, I29, M15

## ПРИСТУП ЕВАЛУАЦИЈИ КУРСЕВА ДАЉИНСКОГ УЧЕЊА ЗАСНОВАН НА ЕДАС МЕТОДИ

### Апстракт

*Развој и раст и примене информационо-комуникационих технологија, као и Интернет, је олакшао приступу образовним материјалима и утицао на пораст популарности курсева за даљинско учење. Пораст броја наведених курсева довео је и до потребе за оцењивањем њихове квалитете. Као резултати тога, критеријуми и процедуре за евалуацију електронских курсева су постали изузетно важни. Из тог разлога, у овом раду је приказана примена ЕДАС методе за евалуацију квалитета електронских курсева. Извршена је оцена четири електронска курса заснована на седам критеријума дефинисаних на основу прегледа литературе.*

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*Процес евалуације је изведен у условима зрујног одлучивања у циљу добијања што релевантнијих резултата.*

**Кључне речи:** ЕДАС, ВКО, зрујно одлучивање, електронско учење, садржај, квалитети

## Introduction

The development of the Internet has seriously changed the industrial and business activity in the world. Additionally, Internet caused the revolution in education by introducing the learning based on the Internet technology. The use of this technology accelerates exchanging of information and facilitates the education management and performing the given tasks (Tzeng et al., 2007). In that way, the learning process is not connected to the particular place or period of time. Now, a student could choose when and where he/she will perform the studying.

Designing an e-learning course is not easy task for a faculty or other type of educational institution. The e-learning course could not be developed independently from the environment. In other words, the student needs and expectations should be considered before and during the realization of the online course. So, the technical functionality of the online course is as much important as its capacity for adaptation to the changes of the environment (Graf & List, 2005).

Assessment of the usability and quality of the online course is not an easy task. Besides, identifying the users of the online course as well as the tasks in an online context are the additional obstacle (Zaharias & Poylymenakou, 2009). The convenient tool for the assessment of the online courses could be the Multiple Criteria Decision Making (MCDM) methods. The MCDM can be described as the process of selecting the most appropriate from a set of available alternatives. However, MCDM can be defined as a process of ranking and prioritizing alternatives.

In addition to many known MCDM methods, such as: SAW (MacCrimmon, 1968), AHP (Saaty, 1980), TOPSIS (Hwang and Yoon, 1981), PROMETHEE (Brans and Vickine, 1985), ELECTRE (Roy, 1991), VIKOR (Opricovic, 1998), some new MCDM methods have been proposed, such as: COPRAS (Zavadskas et al., 1994), ARAS (Zavadskas and Turskis, 2010), EADS (Keshavarz Ghorabae et al., 2015). Until now, the MCDM methods have been used for the facilitation of decision-making process in many business fields such as: hotel and tourism industry (Stanujkic et al., 2017a; Karabašević et al., 2019; Popovic et al., 2019a; Popovic et al., 2019b), IT industry (Karabasevic et al., 2018), negotiation (Stanujkic et al., 2017b), household issues (Hassanpour & Pamucar, 2019), transport (Çam & Sezen, 2020), etc.

The evaluation of the e-learning websites occupied significant research attention which proves a number of papers that elaborate the mentioned topic, only to mention some of them, Garg and Jain (2017) proposed the application of the FAHP, COPRAS, VIKOR and WDBA methods in the case of the e-learning website selection, while Khan et al. (2019) applied the PIV method for the same purpose. The analysis of the components of e-learning systems and its prioritization is, also, performed by using the MCDM methods (Çelikbilek & Adıgüzel Tüylü, 2019).

For the purpose of this paper, the application of the EDAS method is proposed. The reason for the proposing mentioned method reflects thorough the fact that it is simple, understandable, and convenient for facilitation the business problems. Therefore, the remaining part of the paper is organized as follows: In the second section, the EDAS method is presented and in the third section a numerical illustration is considered. Finally, the conclusions are given.

## The EDAS method

As previously mentioned, the EDAS has been introduced by Keshavarz Ghorabae et al. (2015). Similar to the very popular TOPSIS method, the EDAS method uses two distance measures to select the most appropriate alternative, but the calculation procedures are quite different. The EDAS method use two distance measures, namely the Positive Distance from Average (PDA) and the Negative Distance from Average (NDA), and that the most appropriate alternative is the alternative that has higher value of PDA and lower value of NDA.

The computational procedure of the EDAS method, for decision-making problem with  $m$  criteria and  $n$  alternatives, can be precisely presented as follows (Stanujkic et al., 2017c):

**Step 1.** Select the available alternatives, the most important criteria that describe alternatives, and rank alternatives in order to selected criteria. As a result, a decision matrix has been formed.

**Step 2.** Determine the average solution according to all criteria, shown as follows:

$$\bar{x}_j = (x_1, x_2, \dots, x_n), \quad (1)$$

with:

$$\bar{x}_j = \frac{\sum_{i=1}^m x_{ij}}{m}. \quad (2)$$

where  $x_{ij}$  denotes the rating of the alternative  $i$  in the relation of the criterion  $j$ .

**Step 3.** Calculate the positive distance from average  $d_j^+$  and the negative distance from average  $d_j^-$  according to the type of criteria (beneficial and non-beneficial) as follows:

$$d_j^+ = \begin{cases} \frac{\max(0, (x_j - \bar{x}_j))}{\bar{x}_j}; & j \in \Omega_{\max} \\ \frac{\max(0, (\bar{x}_j - x_j))}{\bar{x}_j}; & j \in \Omega_{\min} \end{cases}, \quad (3)$$

$$d_j^- = \begin{cases} \frac{\max(0, (\bar{x}_j - x_j))}{\bar{x}_j}; & j \in \Omega_{\max} \\ \frac{\max(0, (x_j - \bar{x}_j))}{\bar{x}_j}; & j \in \Omega_{\min} \end{cases}, \quad (4)$$

where:  $\Omega_{\max}$  and  $\Omega_{\min}$  denotes the set of beneficial and non-beneficial criteria, respectively.

For a decision-making problem involving only the beneficial criteria  $d_j^+$   $d_j^-$  can be determined as follows:

$$d_j^+ = \frac{\max(0, (x_j - \bar{x}_j))}{\bar{x}_j}, \quad (5)$$

$$d_j^- = \frac{\max(0, (\bar{x}_j - x_j))}{\bar{x}_j}. \quad (6)$$

**Step 4.** Determine the weighted sum of PDA,  $Q_i^+$ , and weighted sum of NDS,  $Q_i^-$ , for all alternatives, as follows:

$$Q_i^+ = \sum_{j=1}^n w_j d_j^+, \quad (7)$$

$$Q_i^- = \sum_{j=1}^n w_j d_j^-. \quad (8)$$

**Step 5.** Normalize the values of weighted sum of PDA and weighted sum of NDA for all alternatives, as follows:

$$S_i^+ = \frac{Q_i^+}{\max_i S_i^+}, \quad (9)$$

$$S_i^- = 1 - \frac{Q_i^-}{\max_i S_i^-}, \quad (10)$$

where  $S_i^+$  and  $S_i^-$  denote the normalized weighted sum of PDA and NDA, respectively.

**Step 6.** Calculate the appraisal score  $S_i$  for all alternatives, as follows:

$$S_i = \frac{1}{2}(S_i^+ + S_i^-). \quad (11)$$

**Step 7.** Rank the alternatives according to the decreasing values of the appraisal score. The alternative with the highest  $S_i$  is the best choice among the candidate alternatives.

## The use of EDAS method for group decision-making

Solving complex decision-making problems require the involvement of a number of respondents. In such cases, personal attitudes have to be transformed into the

group attitudes. For a team consisting of  $K$  respondents the individual attitudes can be transformed into a group as follows:

$$x_j = \frac{1}{K} \sum_{k=1}^K x_j^k, \quad (12)$$

where  $x_j^k$  denotes attitude of alternative  $i$  in relation to criterion  $j$  obtained from decision-maker  $k$ , and  $x_j$  denotes the rating of the alternative  $i$  in the relation of the criterion  $j$ .

## A Numerical Illustration

In this case study, four e-learning courses, designated as  $A_1$ ,  $A_2$ ,  $A_3$ , and  $A_4$ , have been evaluated on the basis of seven criteria by twenty-four respondents. The criteria used for the evaluation, as well as their weights, are shown in Table 1.

The responses, computational details, and weight obtained from the first of three randomly selected respondents are shown in Tables 1, 2, and 3.

Table 1: The criteria and weights of criteria

Criteria		$w_j$
$C_1$	Level of content	0.14
$C_2$	Presentation method	0.14
$C_3$	Teaching method	0.13
$C_4$	e-learning environment	0.14
$C_5$	Learning materials	0.15
$C_6$	Quality of multimedia content	0.14
$C_7$	Group work and interactivity	0.15

The ratings obtained from three to twenty-four respondents are shown in Tables 2 to 4 and on Figures 1 to 3.

Table 2: The ratings obtained from the first of twenty-four respondents

Criteria	$C_1$	$C_2$	$C_3$	$C_4$	$C_5$	$C_6$	$C_7$
$C_1$	4	3	3	4	2	4	5
$C_2$	3	5	2	4	4	4	4
$C_3$	5	5	4	5	3	3	2
$C_4$	4	5	5	4	4	4	4

Figure 1: The ratings obtained from the first of twenty-four respondents

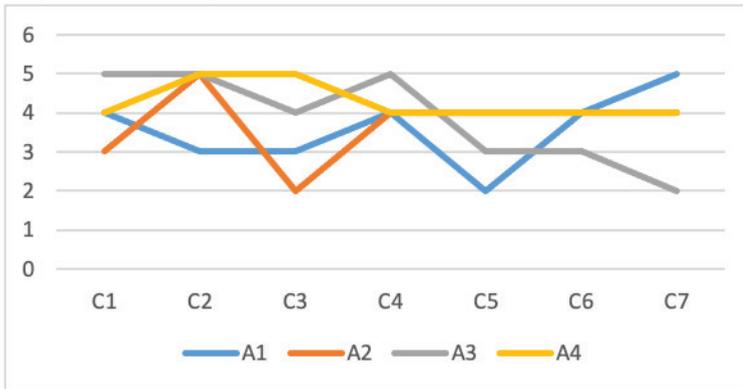


Table 3: The ratings obtained from the second of twenty-four respondents

Criteria	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	C <sub>6</sub>	C <sub>7</sub>
C <sub>1</sub>	2	3	5	5	2	3	2
C <sub>2</sub>	4	5	4	5	4	4	5
C <sub>3</sub>	5	4	4	5	5	5	3
C <sub>4</sub>	3	5	3	4	4	5	4

Figure 2: The ratings obtained from the second of twenty-four respondents

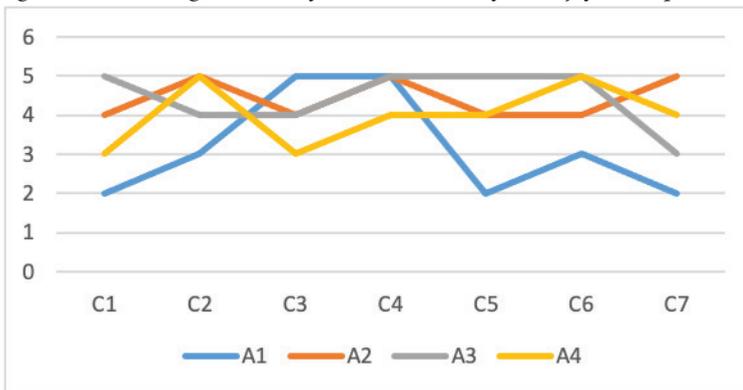
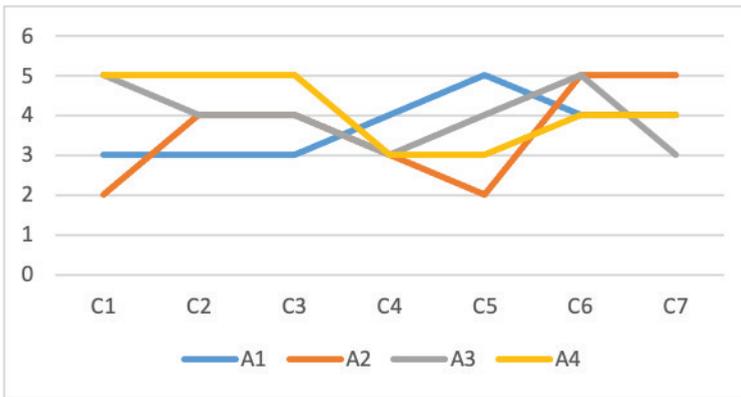


Table 4: The ratings obtained from the third of twenty-four respondents

Criteria	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	C <sub>6</sub>	C <sub>7</sub>
C <sub>1</sub>	3	3	3	4	5	4	4
C <sub>2</sub>	2	4	4	3	2	5	5
C <sub>3</sub>	5	4	4	3	4	5	3
C <sub>4</sub>	5	5	5	3	3	4	4

Figure 3: The ratings obtained from the third of twenty-four respondents



The ratings of the alternative  $A_1$  obtained from all respondents are shown in Table 5. At the end of this table, the group ratings are also shown.

Table 5: The ratings and group ratings of alternative  $A_1$ 

	$C_1$	$C_2$	$C_3$	$C_4$	$C_5$	$C_6$	$C_7$
$R_1$	4	3	3	4	2	4	5
$R_2$	2	3	5	5	2	3	2
$R_3$	3	3	3	4	5	4	4
$R_4$	4	3	3	4	2	4	5
$R_5$	3	4	5	4	3	2	2
$R_6$	4	4	2	4	5	4	4
$R_7$	3	5	4	4	4	5	5
$R_9$	4	4	4	5	4	5	4
$R_{10}$	3	3	5	3	3	1	2
$R_{11}$	4	5	4	5	5	4	3
$R_{12}$	3	5	4	4	4	4	4
$R_{13}$	2	2	3	2	1	2	3
$R_{14}$	3	4	3	2	4	2	4
$R_{15}$	4	2	2	3	4	5	3
$R_{16}$	3	4	5	4	3	2	2
$R_{17}$	2	3	3	2	3	2	3
$R_{18}$	2	2	2	1	2	2	1
$R_{19}$	5	4	4	5	4	3	2
$R_{20}$	1	3	3	1	2	1	2
$R_{21}$	4	3	3	4	2	4	5
$R_{22}$	2	2	3	3	2	2	2
$R_{23}$	3	5	4	2	3	4	2
$R_{24}$	5	4	5	4	3	2	3
Avg.	3.25	3.50	3.63	3.46	3.13	3.04	3.13

The ratings obtained for alternatives  $A_2$ ,  $A_3$ , and  $A_4$  are similarly presented in *Tables 6, 7, and 8.*

*Table 6: The ratings and group ratings of alternative  $A_2$*

	$C_1$	$C_2$	$C_3$	$C_4$	$C_5$	$C_6$	$C_7$
$R_1$	3	5	2	4	4	4	4
$R_2$	4	5	4	5	4	4	5
$R_3$	2	4	4	3	2	5	5
$R_4$	4	3	4	4	4	4	4
$R_5$	3	3	4	4	4	4	4
$R_6$	5	3	5	4	4	4	4
$R_7$	5	3	5	4	4	4	4
$R_9$	2	5	4	4	4	5	4
$R_{10}$	3	5	5	5	4	5	5
$R_{11}$	3	5	2	4	4	4	4
$R_{12}$	3	4	4	4	5	5	2
$R_{13}$	2	3	2	2	1	4	2
$R_{14}$	3	2	2	2	3	2	3
$R_{15}$	3	3	3	3	4	4	3
$R_{16}$	3	3	4	4	4	4	4
$R_{17}$	2	3	3	3	3	2	3
$R_{18}$	3	3	2	2	3	2	1
$R_{19}$	5	4	3	5	4	4	5
$R_{20}$	3	5	2	4	4	4	4
$R_{21}$	4	5	4	4	3	4	2
$R_{22}$	3	3	4	3	2	2	3
$R_{23}$	2	3	3	2	4	3	4
$R_{24}$	4	3	4	2	2	2	4
Avg.	3.29	3.71	3.50	3.54	3.46	3.71	3.58

*Table 7: The ratings and group ratings of alternative  $A_3$*

	$C_1$	$C_2$	$C_3$	$C_4$	$C_5$	$C_6$	$C_7$
$R_1$	5	5	4	5	3	3	2
$R_2$	5	4	4	5	5	5	3
$R_3$	5	4	4	3	4	5	3
$R_4$	5	3	4	5	4	4	5
$R_5$	3	5	3	3	4	5	2
$R_6$	5	3	3	5	3	3	3
$R_7$	3	4	3	3	3	4	4
$R_9$	3	5	5	5	5	3	5
$R_{10}$	4	3	2	5	3	4	3
$R_{11}$	3	4	5	3	3	5	4
$R_{12}$	3	3	4	4	5	4	5
$R_{13}$	3	2	1	1	3	5	3

$R_{14}$	5	4	4	3	4	5	3
$R_{15}$	5	3	4	5	4	4	5
$R_{16}$	3	5	3	3	4	5	2
$R_{17}$	5	3	3	5	3	3	3
$R_{18}$	3	1	1	2	4	1	2
$R_{19}$	4	5	2	5	4	4	4
$R_{20}$	1	3	1	1	3	1	3
$R_{21}$	5	5	4	5	3	3	2
$R_{22}$	5	5	4	5	3	3	2
$R_{23}$	3	3	2	1	3	1	2
$R_{24}$	4	2	3	4	1	3	3
Avg.	3.92	3.71	3.17	3.79	3.54	3.63	3.13

Table 8: The ratings and group ratings of alternative  $A_4$ 

	$C_1$	$C_2$	$C_3$	$C_4$	$C_5$	$C_6$	$C_7$
$R_1$	4	5	5	4	4	4	4
$R_2$	3	5	3	4	4	5	4
$R_3$	5	5	5	3	3	4	4
$R_4$	4	5	3	4	4	4	4
$R_5$	4	4	3	4	3	4	4
$R_6$	4	5	2	4	4	4	4
$R_7$	3	5	5	3	3	5	4
$R_9$	2	5	4	4	5	4	5
$R_{10}$	4	5	5	4	5	4	3
$R_{11}$	4	4	5	5	5	3	3
$R_{12}$	5	4	3	2	4	5	4
$R_{13}$	2	2	4	1	4	2	2
$R_{14}$	3	4	2	4	3	2	2
$R_{15}$	3	5	4	4	5	2	3
$R_{16}$	3	4	4	3	5	2	5
$R_{17}$	2	2	3	2	3	2	3
$R_{18}$	2	2	2	1	1	1	2
$R_{19}$	5	4	5	4	4	3	3
$R_{20}$	4	5	5	4	4	4	4
$R_{21}$	4	5	3	5	5	2	2
$R_{22}$	3	3	2	2	1	2	2
$R_{23}$	2	2	3	4	4	2	2
$R_{24}$	3	1	2	3	5	2	5
Avg.	3.46	4.00	3.63	3.38	3.79	3.13	3.38

Finally, the group rating of alternatives are shown in Table 9.

Table 9: The group ratings of considered alternatives, and the average solution

	$C_1$	$C_2$	$C_3$	$C_4$	$C_5$	$C_6$	$C_7$
$A_1$	3.25	3.50	3.63	3.46	3.13	3.04	3.13
$A_2$	3.29	3.71	3.50	3.54	3.46	3.71	3.58
$A_3$	3.92	3.71	3.17	3.79	3.54	3.63	3.13
$A_4$	3.46	4.00	3.63	3.38	3.79	3.13	3.38
$\bar{x}_j$	3.48	3.73	3.48	3.54	3.48	3.38	3.30

The average solution, according to all criteria, obtained using Eqs. (1) and (2), is also shown in the last row on Table 9.

The positive distances from average, calculated using Eq. (5), and the negative distances from average, calculated using Eq. (6), are shown in Table 10 and Table 11, respectively.

Table 10: The positive distances from average

	$C_1$	$C_2$	$C_3$	$C_4$	$C_5$	$C_6$	$C_7$
$A_1$	0.000	0.000	0.042	0.000	0.000	0.000	0.000
$A_2$	0.000	0.000	0.006	0.000	0.000	0.099	0.085
$A_3$	0.126	0.000	0.000	0.071	0.018	0.074	0.000
$A_4$	0.000	0.073	0.042	0.000	0.090	0.000	0.022

Table 11: The negative distances from average

	$C_1$	$C_2$	$C_3$	$C_4$	$C_5$	$C_6$	$C_7$
$A_1$	0.066	0.061	0.000	0.024	0.102	0.099	0.054
$A_2$	0.054	0.006	0.000	0.000	0.006	0.000	0.000
$A_3$	0.000	0.006	0.090	0.000	0.000	0.000	0.054
$A_4$	0.006	0.000	0.000	0.047	0.000	0.074	0.000

Weighted sum of PDA and NDA, obtained using Eq. (7) and Eq. (8), and normalized weighted sum of PDA and NDA, obtained using Eq. (9) and Eq. (10), are shown in Table 12.

Table 12: Calculation details obtained using EDAS method

	$Q_i^-$	$Q_i^+$	$S_i^-$	$S_i^+$	$S_i$	Rank
$A_1$	0.01	0.06	0.14	0.00	0.07	4
$A_2$	0.03	0.01	0.66	0.84	0.75	2
$A_3$	0.04	0.02	1.00	0.65	0.82	1
$A_4$	0.03	0.02	0.78	0.69	0.74	3
$\Sigma$	0.04	0.06				

The appraisal score  $S_i$  for each alternative, determined using Eq. (11) is also given in Table 12. On the basis of the appraisal score the alternative denotes as  $A_3$  is selected as the most appropriate one.

## Conclusion

Many faculties and institutions design and offer various online courses pointed to different topics. Every one of these institutions has certain advantages and disadvantages in conducting such type of education. The main goal is, certainly, obtaining the quality education and achievement of the desired goal without sacrificing the education standards.

In order to define the advantages and disadvantages of a certain online course, the MCDM techniques could be a very convenient way. The authors proposed different models for the assessment of the quality of the e-learning as well as for the prioritization of the e-learning websites. This paper presents an application of the EDAS method for e-learning courses evaluation. The evaluation was based on the seven criteria that rely on the views of twenty-four respondents.

The main reason for the application of the EDAS method is its simplicity and relevance. The obtained results clearly outlined what features of the online course should be improved, as well as how is its position relative to the competition. The simplicity of the presented method makes it suitable for application by the practitioners outside of the scientific field. By using this method, the practitioners, i. e. the educators that offer e-courses will easily determine what features of its course are good and what should be improved.

The proposed model is based on the application of the crisp numbers, which is the crucial deficiency of this paper. Because of that, the vagueness of the environment i.e. the indecision of the respondents, is not appreciated in the satisfying degree. This shortage could be overcome by using the proper extensions of the proposed method. Afterward, the applicability of the EDAS method certainly could not be denied.

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ORIGINAL SCIENTIFIC ARTICLE  
DOI: 10.5937/ekonomika2004062P  
Received: March, 17. 2020.  
Accepted: October, 02. 2020.

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## CULTURAL AND RELIGIOUS TOURISM IN KOSOVO AND METOHİJA

### Abstract

*The culture and cultural heritage are an expression of a nation's identity, history, tradition and civilization, an indicator of its life in time and space. This paper focuses on the analysis of cultural and religious tourism in Kosovo and Metohija area. The primary data was collected through a survey method, in August 2018, by a sample group of 38 respondents who participated in an organized two-day trip. The goal of this paper is to present the current state of cultural heritage and the significance which religious and cultural tourism have for the development of the local community on Kosovo and Metohija. Results of the research indicate that cultural and religious tourism contributes to regional development, cultural values, but also that a large number of monasteries and churches located in this area represent true sanctity for our people.*

*The purpose of this paper is to point out the importance of cultural and religious tourism on the development of local communities in Kosovo and Metohija, but also to point out the fact that sacral buildings in this area have great, sacred value for our people. The research was conducted through a multidimensional questionnaire. The obtained data were processed manually by the authors of this paper, since the research sample is restrictively small. The scientific research methods used in the paper are the methods of analysis and synthesis, the method of induction and deduction, as well as the method of descriptive analysis.*

*On that occasion, we found that cultural and religious tourism is very developed in this area, despite the unrest that has marked the last decade. Also, it was determined that these forms of tourism are of great importance for the community in Kosovo and Metohija. Tourists view the sacral buildings in this area as great shrines to which they show great respect. The practical implications of this paper are reflected in the fact that the obtained results can be used in further research.*

**Key words:** *cultural tourism, religious tourism, development, local community, Kosovo and Metohija.*

**JEL classification:** Z12, Z32

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## КУЛТУРНИ И ВЕРСКИ ТУРИЗАМ КОСОВА И МЕТОХИЈЕ

### Апстракт

Култура са културном баштином је израз идентитета народа, његове историје, традиције и цивилизације, показатељ његовог живота у времену и простору. У фокусу овог рада налази се анализа културног и верског туризма на подручју Косова и Метохије. Примарни подаци прикуљени су методом анкетирања, у августу 2018. године, на узорку од 38 испитаника који су били учесници организованог дводневног путовања. Циљ рада јесте да прикаже значај који верски и културни туризам има за развој локалне заједнице на Косову и Метохији. Резултати истраживања указују да културни и верски туризам доприносе регионалном развоју, културним вредностима, али и да велики број манастира и цркава који се налазе на овом подручју, представља за наш народ праву светост.

Сврха овог рада је да укаже на значај културног и верског туризма на развој локалних заједница на Косову и Метохији, али и на чињеницу да сакрални објекти на овом подручју имају велику, светувредност за наш народ. Истраживање је сprovedено кроз више димензионални ујитник. Добијене податке аутори овог рада обрађују ручно, јер је узорак истраживања ретриktivно мали. Методе научног истраживања које се користе у раду су методе анализе и синтезе, метода индукције и дедукције, као и метода описне анализе. Том приликом смо утврдили да је културни и верски туризам веома развијен на овом подручју, упркос немирима који су обележили последњу деценију. Такође, утврђено је да су ови облици туризма од великог значаја за заједницу на Косову и Метохији. Туристички сакралне зрађевине на овом подручју виде као велика светилишта према којима показују велико поштовање. Практичне импликације овог рада огледају се у чињеници да се добијени резултати могу користити у даљим истраживањима.

**Кључне речи:** културни туризам, верски туризам, развој, локална заједница, Косово и Метохија.

### Introduction

The question of future development of tourism is asked all over the world for a good reason (Šušić & Đorđević, 2019). The newest trends in this industry indicate on increased demand for new alternative forms of tourism (Sagić, et al., 2019). Also, changes in needs and demands of tourists have in recent years led to significant changes in the tourism market. Tourists are more demanding, educated and sophisticated, which leads to a need for new tourist products in tourism offers. A need for new events in some new destinations appears. All these changes lead to a situation in which specific forms of tourism gain in significance, and especially cultural tourism among them.

Cultural tourism denotes movement of people which is caused by cultural attractions beyond their usual place of residence, with the intention of collecting new information and experiences in order to satisfy their cultural needs (Richards,

2005, p.16). For that reason, cultural tourism belongs to areas which border cultural geography and studies which analyze cultural mobility, cultural identity and relations between societies on different levels of development (Petroman, 2013). The definition of cultural tourism includes historical, artistic, ethnical, religious, sport and other forms of selective tourism (Sančanin, et al., 2019). Cultural tourism emphasizes richness in material and non-material heritage of a specific area in order to realize numerous positive economic, ecological and social effects. On one hand, cultural tourism enables development and improvement of a destination, and on the other hand, it increases public awareness of special cultural and historical values and their preservation. Cultural heritage is an authentic and unrepeatable resource (Sančanin et al., 2019).

Religious tourism can be defined as a visit to specific tourist spots where visitors have a chance to experience religious events and locales. Religious tourism is also called pilgrimage tourism. As such, it implies a type of tourism where people travel individually or in groups on pilgrimages, for missionary or free (common) purposes (Chianeh, et al., 2018).

Religion and faith have always been strong motivators in evolution of society and movements of people. Among other things, religion and pilgrimage also have significant economic implications in contemporary societies. Religious tourism plays an important role in development of local economy and for many destinations it is a new form of tourist activity. Religious tourism is an additional source of income for many rural economies (Kilipiris & Dermetzopoulos, 2016). Pilgrims, as well as religious tourists, travel on religious tours when they feel the need to do more than regular cult activities in conditions of a regular environment of their place of residence. Thereby, the peoples' motives for visits to holy places are different: for prayer, solving personal problems, finding a suitable religion, theological education or system of values, or for familiarization with a country's cultural heritage (Yakunin&et.al., 2016).

The subject of this paper is gaining an insight into influences of cultural and religious tourism on tourism development of the local community in Kosovo and Metohija. A large number of monasteries, churches and church areas on Kosovo and Metohija are places of historical roots and future. The institution which has integrated Serbian people through centuries, and which to this day has the most important spiritual and moral power is the Serbian Orthodox Church. It preserves the national and religious identity and it is the institution which has preserved through centuries the concept of sobornost on Kosovo and Metohija (Avramović, 2018). Cultural tourism may be realized by the benefit for the local populace, through many complementary service and other activities in the form of economic convenience, enabling development for social minorities, reviving tradition, harmonization, etc. (Damnjanović, et al., 2016). A number of churches and monasteries which were destroyed or damaged during the war on Kosovo and Metohija were rebuilt, and devotional trips to them are organized. A visit to these monasteries represents sanctity for the people and nation of Serbia. For monasticism, but also for other Serbs in these areas, devotional travels represent a form of support and a message that they are not forgotten (Anđelković, 2019). The development of religious and cultural tourism which would include preservation of customs for monasteries and realization of financial effects could significantly increase through tourism cooperation of Serbia and Serbian Orthodox Church (Živadinović & Knežević, 2018).

The aim of this paper is to present certain aspects of the importance of religious and cultural tourism for the development of the local community in Kosovo and Metohija.

## **Material and metod of work**

As a research instrument, a multidimensional survey questionnaire with a general and special part was used, which contained 8 questions. The general part examined the socio-demographic structure of the respondents, while the special part contained 8 questions whose answers were formed according to the principle of rounding and supplementation. The questionnaire was originally designed by the author of this paper. The obtained data were processed manually by the authors of this paper, without the use of statistical programs, since the research sample is small. In the research, we started from the general hypothesis X0: *Religious and cultural tourism is of great importance for the development of the local community in Kosovo and Metohija*. On that occasion, a special hypothesis was identified, which reads, X1: *A large number of monasteries and churches located in this area, represents true holiness for our people*.

The methods used in the study of professional literature dealing with the topic as well as this paper are: methods of analysis and synthesis and methods of induction and deduction.

## **Literature review**

Culture is an integral part of the entire social and individual life. It represents a collection of the entire human heritage, material (material culture) as well as spiritual (spiritual culture), without which the existence of human society could not even be imagined, not even in the simplest forms of its organization (ĐukićDojčinović 2005, p. 15). World Tourist Organization has provided two definitions for the concept of cultural tourism: in a narrow sense, cultural tourism means “the movement of people with strong cultural motivation – fine arts, travels to festivals and other cultural events, visits to landmarks and monuments”; and in a broad sense it means “all movements of people for satisfying human needs for diversity, directed at increasing the individual’s cultural level and gaining new knowledge and experiences” (World Tourist Organization (UNWTO): [www2.unwto.org](http://www2.unwto.org)).

The basic functions of cultural tourism are to represent the national and local values to a tourist, as well as to enrich tourist destinations with cultural content, and to make them more attractive for the domestic population. That means that, thanks to cultural tourism, festivals, cultural and art manifestations, local celebrations and artistic programs attract the tourist, as well as the local populace. In other words, culture always attracts tourists, and the only question is whether it is visible or hidden for them. For that reason, the main problem of cultural tourism lies in activation, preservation and presentation of cultural possibilities (Đukić Dojčinović, 2005).

The idea of religious pilgrimage has developed in very early stages of human history, which is why religious tourism is one of the earliest forms of tourism (Kilipiris& Dermetzopoulos, 2016). Religious tourism implies tourist trips with the purpose of

satisfying religious needs by visiting religious centers, holy places, monuments, buildings, locales, religious festivals, etc. Religion is very closely connected with tourism, and it represents a very strong motive for travel (Chianeh, et al., 2018). When we talk about religious tourism we think of pilgrimages, but also of travels and visits to religious locales with the basic motive of connection, study and familiarization of religious traditions and heritage (Skoultzos & Vagionis, 2015). When it comes to religious tourism, the motivation which a tourist can feel cannot be initiated only by cognitive, educational and cultural needs, but by spiritual ones as well (Nedeljković, 2018).

It should also be noted that religious tourism contributes to regional development, as well as that pilgrimage tourism may restore cultural values (Pourtaheri, et al., 2012). Religious tourism, as a branch of tourism, attracts more and more attention of world tourism organizations, as well as of many authors in the sense of a branch which may have an important influence on increasing the social product and national income. While certain authors consider that religious tourism may cause an increase in the social product and in the growth of the national income, others, as far as Serbia is concerned, present a thesis that religious tourism cannot impact significantly the growth of the national income, or it cannot reduce the number of unemployed people, and that also it may have an adverse effect on spirituality and the Serbian Orthodox Church (Mićunović, 2015, p. 44). Religious tourism is not related only on the form of tourism with a strong and unanimous motive for pilgrimage, but also to tourist activities which are not related to pilgrimage, such as travels for viewing religious landmarks, cultivation and recreation (Heidari, et al., 2017). It can be said that religious tourism benefits all of its participants. First, religious entities can expect an income from donations and charity organizations. Second, religious tourists can leave charity contributions and buy souvenirs, so the income can be invested into restoration of certain local craftsman activities (Durán-Sánchez, et al., 2018). When compared to a pilgrim, a religious tourist is primarily motivated by cultural knowledge, while a pilgrim is primarily motivated by religion. The number of tourists who visit religious places has increased multiple times, despite the growing number of atheists and agnostics and the declining significance of religion in the Western world (Bogan, et al., 2019). There is a traditional belief that a man who is religious by nature often leaves his home near the end of his life cycle in order to visit sacred places, so as to separate from his worldly life. Travels whose purpose is pilgrimage represent a basis which leads to the development of a phenomenon called tourism (Sivakumar, et al., 2019). Religious tourism encourages us to learn tradition and customs of different ethnic groups and cultures, promotes spirituality and patriotic education of the populace, and thus offers a chance for gathering of people while striving for world peace (Eidelman, et al., 2017).

## Research Design

The method used for collection of relevant data is the survey method. For the purposes of this paper we have conducted a survey about opinions of bus passengers organized by Balkan Turs – KIMKO agency from Niš. In other words, the primary data was collected with a method of surveying all participants of this two-day trip, who answered ten close-ended questions. 38 complete surveys were collected. While constructing

the survey we took into consideration its length, meaningfulness of questions, and their relevance to the given topic. The survey was available to everyone who wanted to participate in it, regardless of gender, age, employment status, ethnical background, etc. The survey was anonymous, so the respondents' names cannot be publicized.

Namely, the plan for the first day included visits to the Patriarchate of Peć, monastery Dečani, monastery of the Holy Archangels, city of Prizren, the church of Our Lady of Ljeviš, the church of St. George in the center of Prizren and Orthodox Seminary of Prizren. In the evening there was a concert of the famous opera singer Divna Ljubojević, which was organized within the international medieval music festival Medimus. The plan for the second day included visits to the monastery Zočište and attendance of the Holy Liturgy, afterwards returning to Velika Hoča and a tour of that Serbian enclave. Also, the program included the visit to the monastery Gračanica. The organizer of the trip agreed, at the passengers' wish and coaxing, to visit and have a tour of Gazimestan, a significant historical monument for Serbia. On this occasion, the visitors were warned about movement restrictions, behaviour and opportunities to spend money. Namely, individual movement was free inside monastery walls, in Velika Hoča and Gračanica, while group movement was free in Prizren. Monastery shops were notified about the visit in advance. A possibility of visits and donations to Serbian families who need material help, and who live in enclaves was also announced in advance on this occasion.

## Research results and Discussion

It is estimated that around 89100 inhabitants of Serbian nationality live in enclaves in Kosovo and Metohija. The largest number of Serbian populace lives on the territory of Central Kosovo – around 40000 or 44.9% of the populace of Serbian enclaves. The largest number of Serbs after Central Kosovo lives in enclaves of Kosovsko Pomoravlje, 35000 or 39.3% of the populace. 12000 Serbs or 13.5% of the total enclave dwelling populace lives in mountain villages of Šar Mountains, located in the south of Kosovo. The smallest number of Serbs, 2100 or 2.3% of the enclave population lives in Metohija enclaves (Milosavljević, 2013).

UNMIK is responsible for preservation of cultural heritage, considering that the location of Kosovo and Metohija is under protectorate, based on resolution 1244 of UN Security Council. 155 of 1300 of orthodox churches and monasteries and 24 cultural monuments in Kosovo and Metohija were damaged or destroyed. State authorities of Serbia estimate that more than 10000 icons, ecclesiastical artworks and worship objects, and old manuscripts were stolen or destroyed after the arrival of UNMIK and KFOR (Mihajlović & Mihajlović, 2013). A problem of lack of data on the Kosovo and Metohija territory is stated in Tourism Development Strategy of the Republic of Serbia for the period from 2016 to 2025 (Katanić, 2017). Because of problems with the status of Kosovo and Metohija, it is pointless at this point to compare the status of the southern province with the restparts of the Republic of Serbia (Molnar & Manić, 2018).

Significant wealth in the form of cultural and historical monuments is located in this area. Consumption of cultural heritage, a sensitive resource, rises faster than creation and realization of tourism plans and protection (Radović, et al., 2018).

The most significant medieval temples of the Serbian Orthodox Church are located in Kosovo and Metohija, the most famous of them being: XIV century monastery Visoki

Dečani, XIV century monastery Gračanica, XIV century church of Our Lady of Ljeviš, XIII-XIV century monastery Patriarchy of Peć, XIV century monastery of the Holy Archangels, XV century monastery Devič, XIII century monasteries and churches in Velika Hoča, XIV century monastery Sokolica, and XIV century monastery Banjska. Monasteries on the UNESCO World Heritage list are: the monastery Visoki Dečani, Patriarchy of Peć, the church of Our Lady of Ljeviš in Prizren, and the monastery Gračanica (Katanić, 2017).

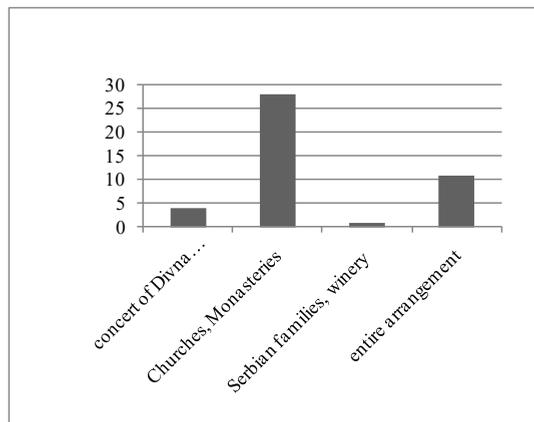
The goal of cultural tourism development and preservation of cultural diversity is to find a way to realize equal legal and physical protection of cultural heritage of the Serbian community, which is currently under the authority of the political decision maker on Kosovo and Metohija territory. The basic premise of cultural tourism development consists of cultural diversity and rich cultural and historical heritage of people who live and have lived on the Kosovo and Metohija territory (Radović, et al., 2018).

All respondents were participants in an organized two-day trip through Kosovo and Metohija from August 2018. The majority of the respondents were female – 60.5 % (23 respondents), while male respondents consisted 39.5% of the group (15 respondents). Age-wise, the largest number of 12 respondents were persons older than 60, 11 respondents were 35 – 59, 10 respondents were 19 – 24, while the remaining 5 respondents were younger than 18. As for the employment status, the majority, i.e. 17 persons, were employed, 9 persons were retired, 8 persons were students, two were unemployed, and two were entrepreneurs. Regarding education, 19 persons had college education, 12 had high school education, 4 had a Master’s degree, and three had only elementary school education. The survey consisted of 10 questions related to contents of the trip to Kosovo and Metohija.

When asked “Are you visiting Kosovo and Metohija for the first time since 1999?” 19 respondents answered that they were visiting Kosovo and Metohija for the first time, 12 respondents answered that since 1999 they have visited Kosovo and Metohija once, while 7 respondents answered that they visit that region often.

The following chart will show the respondents’ answers to the question: “What is the reason for your visit to Kosovo and Metohija this time?”

Picture 1: The structure of answers for the question “What is the reason for your visit to Kosovo and Metohija this time?”



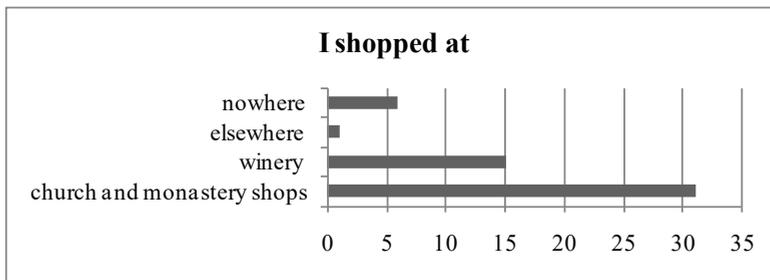
Source: Authors

Based on these answers, we can observe that visits to Churches and Monasteries were the main reason for the trip to Kosovo and Metohija for the majority, while the entire tourism arrangement was the reason for somewhat fewer people, meaning that we can say that the religious tourism is absolutely dominant. The concert and Medimus festival, which by their nature represent cultural tourism, are the reason for a small number of respondents. Taking the abovementioned into consideration, we can conclude that this trip is primarily classified as religious and cultural tourism.

When asked “How did you find out about this trip?” the total of 20 respondents answered that they found out about the trip from a friend’s or a relative’s recommendation. 9 respondents found out from posters, flyers, and agency advertisements, while 5 respondents found out via social networks, and 4 answered that they have found out in some other way. The total of three respondents stated that they received information from the Church.

The following chart will show the structure of respondents’ answers to the question: “Have you bought anything during your stay in Kosovo and Metohija?”

Picture 2: The structure of answers to the question “Have you bought anything during your stay in Kosovo and Metohija?”

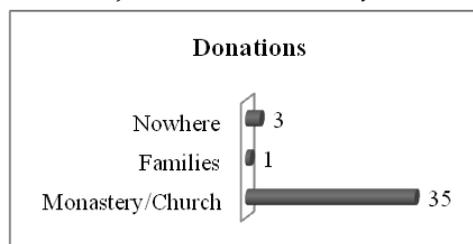


Source: Authors

Based on these answers we can observe that the absolute majority of respondents shopped at stores to which the visits were announced in the tourism arrangement, and in that way confirmed the economic contribution to the local community on Kosovo and Metohija.

The structure of answers to the question “Did you make a donation during your stay in Kosovo and Metohija?” is represented in picture 3.

Picture 3: The structure of answers to the question “Did you make a donation during your stay in Kosovo and Metohija?”

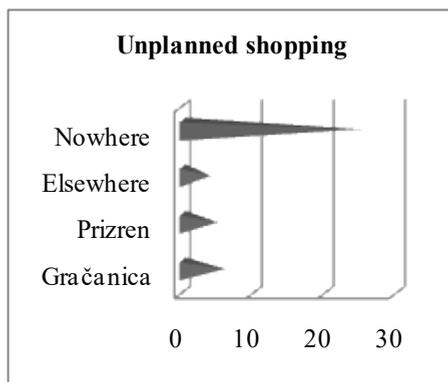


Source: Authors

Based on these answers we can observe that the absolute majority of passengers made a donation, and in that way confirmed the economic contribution to the local community in Kosovo and Metohija.

The following chart will show the respondents' answers to the question: “Did you spend your money in a place which the trip organizer did not announce as a possible shopping destination?”

*Picture 4: The structure of answers to the question “Did you spend your money in a place which the trip organizer did not announce as a possible shopping destination?”*



*Source: Authors*

Based on these answers we can observe that the absolute majority of passengers spent their money in places which were announced in advance as a possible shopping destination. We can conclude that the economic contribution which was directed at the local community of Kosovo and Metohija has kept its direction. When asked “Did you like your stay in Kosovo and Metohija?” most of the respondents (34 of them) were thrilled, four of them were quite satisfied, while no passengers had a negative comment. When asked “Will your current stay affect whether or not you will visit Kosovo and Metohija again, provided you have the possibility?” all respondents answered positively.

Most of the respondents plan to revisit Kosovo and Metohija, based on which we can conclude that religious and cultural tourism promote the local community as a tourist destination. Since all respondents answered that they will recommend their relatives, friends and neighbors to visit Kosovo and Metohija after they return, we can again conclude that religious and cultural tourism promote the local community as a tourist destination. When asked “During your stay in Kosovo and Metohija, was your safety endangered and did you have any kind of unpleasant experience?” all respondents answered that there were no unpleasant situations.

## Conclusion

The study results show that the respondents' cause for the visit to Kosovo and Metohija was primarily religious, and then cultural tourism. Also, the visitors spent

their money in shops, monasteries, churches and made donations, which contributed to economic growth of this region.

The visitors were amazed by cultural and religious tourism and the cultural heritage of Kosovo and Metohija during this two-day trip, and they have expressed their wishes to revisit this destination in the future, as well as to recommend it to all their acquaintances. Most of the participants in this trip found out about it by their relatives' or friends' recommendation, and for that reason we should research ways to expand recommendations to social networks and other advertising channels, in order to achieve more successful marketing. The visitors did not have unpleasant experiences while touring the significant sacred locations this time, which is encouraging for future trips and visits. Based on the answers to the questions asked, we can conclude that cultural and religious tourism represent the real sanctity for our people and that they bring significant contribution to regional and cultural development of this area.

From all the above in the paper, the studied professional literature and the obtained research data, it can be concluded that the general hypothesis X0: *Religious and cultural tourism is of great importance for the development of the local community in Kosovo and Metohija*, fully confirmed. Also, special hypothesis X1: *A large number of monasteries and churches located in this area, represents true holiness for our people*, was confirmed by insight into the obtained research data. Certainly, when drawing conclusions, we must be careful if we keep in mind that the research sample is small. In that sense, opportunities open up for further research and expansion of what has been done.

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ORIGINAL SCIENTIFIC ARTICLE  
DOI: 10.5937/ekonomika2004074I

Received: Jun, 17. 2020.

Accepted: September 18. 2020.

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## INVESTMENT ACTIVITY OF SERBIAN FARMS COMPARING TO NEIGHBOURING COUNTRIES: APPLICATION OF FADN INDICATORS<sup>4</sup>

### Abstract

*Investments are precondition for profitable, efficient and sustainable agricultural production. As a consequence of market liberalization Serbian farmers are competing with EU and neighbouring farmers, therefore it is important to compare investments in Serbian farms with investments in farms in neighbouring countries which have already became EU members (Croatia, Hungary, Romania and Bulgaria). The goal of this research was to analyse investments in the most important farm types in Serbia (mixed type of farms and farms specialized in crop production) and to compare it with appropriate investments in above mentioned countries. To achieve this goal authors used FADN methodology and relevant EU and Serbian databases and publications. The research results revealed that investments in Serbian farms are similar or even higher comparing to investments in observed countries, although level of investment's subsidies in Serbia is modest. Net investments are especially high for mixed Serbian farms, allowing development of even less present livestock production types. Future research should be directed towards evidence and comparison of subsidies on investments according to FADN methodology in Serbia and EU countries.*

**Key words:** *Gross investments, Net investments, Subsidies, FADN.*

**JEL classification:** *Q12.*

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<sup>4</sup> This research was funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia based on the agreement between the Ministry and the Faculty of Agriculture, University of Belgrade (Contract no. 451-03-68/2020-14/200116) as well as between the Ministry and the Institute of Agricultural Economics, Belgrade (Contract no. 451-03-68/2020-14/200009) on the realisation and financing of scientific research in 2020.

## ИНВЕСТИЦИОНА АКТИВНОСТ СРПСКИХ ФАРМИ У ОДНОСУ НА СУСЕДНЕ ДРЖАВЕ: ПРИМЕНА FADN ИНДИКАТОРА

### Апстракт

*Инвестиције су предуслов профитабилне, ефикасне и одрживе пољопривредне производње. Као последица либерализације тржишта, српски пољопривредници се такмиче са пољопривредницима из ЕУ и суседних земаља, стога је веома важно извршити поређење улагања у српске фарме са улагањима у фарме у суседним земљама које су већ постале чланице ЕУ (Хрватска, Мађарска, Румунија и Бугарска). Циљ истраживања био је да се анализирају инвестиције у најважније типове фарми у Србији (мешовити тип фарми и фарме специјализоване за ратарску производњу) и упореде са одговарајућим улагањима извршеним у претходно поменутиим државама. За постизање овог циља коришћени су FADN методологија и релевантне ЕУ и српске базе података и публикације. Резултати истраживања су показали да су инвестиције у српске фарме сличне или чак веће у поређењу са инвестицијама у посматраним државама, иако је ниво субвенција за инвестиције у Србији доста скромнији. Ниво нето инвестиција је посебно висок на мешовитим фармама у Србији, што омогућава развој мање присутних типова сточарске производње. Будућа истраживања би требало да буду усмерена на евидентирање и поређење субвенција за инвестиције према FADN методологији у Србији и чланицама ЕУ.*

**Кључне речи:** *Бруто инвестиције, Нето инвестиције, Субвенције, FADN.*

### Introduction

This paper is researching characteristics of mixed and specialized crop farms in countries surrounding Serbia, which have similar background - former socialist countries such as Croatia, Hungary, Romania and Bulgaria. All these countries are now EU member states and can give an insight in possible future development path of Serbian agriculture. Analyse in this paper will be focused on mixed and specialized crop farms (field-crops), as this farms are dominant in structure of Serbian agriculture (according to latest Farm Structure Survey in Serbia), (SORS, 2019).

Farm Accountancy Data Network (FADN) was launched in European Union in 1965. It considers annual survey (collection of production, economic and financial dataset) at previously determined (representative) farm sample, classified into certain groups in line to their economic size, type of production, etc. (Očić et al., 2018). FADN represents the instrument of the European Commission in order to estimate real producer's income, production performance, etc., as well as to determine the CAP impact on the agricultural sector (Crnčan et al., 2017). Currently, FADN analyses the sample that represents more than 5 million of EU farms and over the 90% of EUs' agri-production (Pitulice, Gorgan, 2012). Development of FADN indicators is important for farmers as they are receiving feedback FADN information (Kovacevic et al., 2017)

Analysis is based on data collected and assorted through the FADN database according to EU regulation 1242/2008 (EC, 2008) using TF8 grouping (such approach is also used in Serbian FADN dataset), which means that mixed farms include following principle type of

farming (with appropriate particular type of farming and its subdivisions), (Tapiador, 2008; EC, 2018):

- Mixed livestock, primarily grazing livestock (Mixed livestock, primarily dairying, Mixed livestock, primarily non-dairying grazing livestock),
- Mixed livestock, primarily granivores (Mixed livestock: granivores and dairying combined, Mixed livestock: granivores and non-dairying grazing livestock),
- Field crops - grazing livestock combined (Field crops combined with dairying, Dairying combined with field crops, Field crops combined with non-dairying grazing livestock, Non-dairying grazing livestock combined with field crops),
- Various crops and livestock combined (Field crops and granivores combined, Permanent crops and grazing livestock combined, Apiculture, Various mixed crops and livestock).

Within FADN database (Špička, 2014) there could also be found reports which apply TF14 grouping (according above mentioned EU regulation), allowing division of mixed farms in following principle types - Mixed crop farms, Mixed livestock farms and Mixed crop and livestock farms. Nevertheless, such grouping was not used in previous Serbian Farm Return, because Serbia is not EU member. Therefore, it could be expected that in close future Serbia FADN will not publish data concerning TF14 grouping, at least until Serbia officially joins the EU.

Specialized crop farms classified in TF8 grouping in the EU include following types of farming (EC, 2015):

- Specialist cereals, oilseeds and protein crops (Specialist cereals (other than rice) oilseeds and protein crops, Specialist rice, Cereals, oilseeds, protein crops and rice combined),
- General field cropping (Specialist root crops, Cereals, oilseeds, protein crops and root crops combined, Specialist field vegetables, Specialist tobacco, Specialist cotton, Various field crops combined),
- Mixed cropping (Horticulture and permanent crops combined, Field crops and horticulture combined, Field crops and vineyards combined, Field crops and permanent crops combined, Mixed cropping, mainly field crops, Other mixed cropping).

It is obvious that some of above mentioned particular types of farming cannot be applied in Serbia (such as rice production or cotton production). Nevertheless, the general principles of farms' classification are the same in Serbia and in the EU. It is also possible to apply following TF14 grouping for specialized crop farms (but their particular types and further subdivisions will not be discussed) - Specialist COP (cereals, oilseeds and protein crops) and Specialist other field-crops (general field cropping).

Research was based on hypothesis that even the Serbian mixed and specialized crop farms are limited in production resources, available assets and subsidies on investments, they could compete with the same type of farms from the neighbouring countries which are EU members. According to that key goal of paper is to define the most important investment features of mixed type of farms and farms specialized in crop production in observed countries, and to compare the data with Serbian farms.

## Material and methods

The analysis of mixed and specialized crop farms in observed EU countries will be made on the basis of FADN data for years 2015 and 2017 (which is the latest available year in the appropriate EU database (EC, 2020)). On the other hand, there are no publically available FADN data for Serbia after year 2015. Therefore, authors used Serbian Farm Return for 2015 to collect data on chosen farm types (MAFWM, 2016). Methodological framework implies the use of comparative analysis of the selected FADN indicators. Internationality to analysis is given through the indicators comparison among the primarily agricultural countries from the Serbian surrounding.

In the analysis are used FADN indicators such as SE080, SE025, SE436, SE516, SE521, SE406, and SE409. Some of them are not presented in Serbia Farm Return, but can be calculated on the basis of existing information (such as indicator SE521 – net investments) while others cannot be calculated (indicator SE409 – subsidies on agricultural investments). On the other hand, some indicators are not presented, neither in the EU FADN database nor in Serbian Farm Return, so they were calculated by the authors (such are the values of total farm assets per annual work unit and net investments per annual work unit). New FADN indicators and calculation methods introduced in this paper can be valuable for Serbian FADN.

## Results and Discussion

At the beginning, it is necessary to take into account the size of similar farm types among different states. The size of the farms could be measured using physical and financial indicators (Hanson et al., 1989). In this research the size of the farms is established based on the number of livestock units (LU) and hectares of total utilized agricultural area (UAA). The model, duration and successfulness of post-communist transformation of agriculture in Eastern parts of Europe, i.e. liberalisation and establishment of market economy has been led to certain level of agricultural development. But, after the several countries from that region accessed to EU, there still lefts the characteristic common to majority of farms – their relatively small size (Baležentis et al., 2019). Typically, farms from observed countries (Serbia, Croatia, Bulgaria, Romania, and Hungary) are facing almost similar issues, lagging far behind to EU averages related to farm's production, investment, market and other elements. Serbian farms are mostly characterized by small and fragmented property, low level of agrochemicals and irrigation use, agro-technical, technological and practical backwardness, economic weakness and powerless financing conditions, etc. (Božić, Munćan, 2015; Jeločnik, 2017).

By size of farm estate Romanian farmer is managing almost 10 times smaller land complex and by their value several times lower size of other fixed assets such are mechanisation, equipment, facilities, etc. than EU average. Besides, value of available current assets at the farm level is for eight times lower than EU average, while farmers are meeting significant deficit in financing sources (Burja, Burja, 2010).

Bulgarian farms are also characterized by limited agricultural area, small number of livestock, small scale production and reduced farms' net incomes. Besides, they are more present within the less favoured areas (LFA), (Galluzzo, 2015). Besides, certain degree of shifting from traditional to newer production models, technological and

knowledge transfer, impact of EU funds, rapid specialization, etc. have been affecting the positive trends in overall farm's sustainability (Bachev, 2017). Although average farm size in Hungary was doubled during the land reform in last decade of XX century, it is still unfavourable. Average farm is extremely fragmented, and in sum of all farms dominate small individual farms that mostly cultivate up to 2 ha. There is constant fall in number of almost all livestock species (Tóth, 2013). According to economic power of average farm, although small farms play important role in Hungarian agriculture, unfortunately almost 85% of total sum of farms generate standard output lower than 4,000 EUR, or 65% of them generate even less than 2,000 EUR (Süveg, 2015). It could be mentioned that within the EU-28, there were around 12 million registered farms in 2010, where at 60% of them standard output did not approach to 4,000 EUR (Kemény et al., 2017).

Similar situation occurs in Croatia. It has unfavourable farms' structure dominating by the small family farms. In average, one farm has almost 3 times smaller agricultural land (5.6 ha) compared to EU, where atomized and dispersed parcels generally initiate inefficient production, leading to the certain level of deficit in the agri-food sector (self-sufficiency is secured in few production lines, such are potatoes, poultry products, cereals, wine and sugar), (Civello, Alvir, 2015; Lončarić et al., 2016).

Regarding number of LU per farm (SE080) and UAA per farm (SE025) Serbian mixed farms are bigger than farms in Croatia, Bulgaria and Romania (Table 1. and Table 2.). Generally, mixed farms are the biggest in Hungary, while they are the smallest in Romania. Some similar situation had been recorded before couple decades (WB, 1995). On the contrary, the biggest farms specialized in crop production are in Bulgaria. They cultivate almost three times more UAA comparing to Serbia. The size of Serbian crop farms is similar to farms in Hungary, while they are bigger comparing to farms in Romania and Croatia. Although farms specialized in crop farming have very small number of LU, this livestock production is probably used only to satisfy needs of household members. In the observed period (2015-2017) in all analysed countries (except in Romania) mixed farms continue to grow, while it was not the case regarding farms specialized in crop production.

*Table 1: Number of livestock units (LU) per farm*

Country	Mixed farms	Farms specialized in crop production	Mixed farms	Farms specialized in crop production
	2015		2017	
Croatia	6.09	1.91	7.93	1.72
Hungary	22.01	1.88	29.74	2.36
Romania	2.99	0.36	2.75	0.39
Bulgaria	4.78	1.35	8.61	1.52
Serbia	14.26	1.55	-	-

*Source: According to MAFWM, 2016; EC, 2020.*

Table 2: Utilized agricultural area (UAA) per farm (in ha)

Country	Mixed farms	Farms specialized in crop production	Mixed farms	Farms specialized in crop production
	2015		2017	
Croatia	8.79	26.38	10.17	24.75
Hungary	39.36	59.12	38.81	62.59
Romania	3.61	21.49	4.1	27.89
Bulgaria	8.38	199.86	16.7	151.89
Serbia	18.91	55.22	-	-

Source: According to MAFWM, 2016; EC, 2020.

The other way to evaluate size of various farm types is to use financial indicators, such as total assets (SE436) or some other indicator. If total assets of mixed farms are compared (Table 3.), they are the highest in Hungary and Serbia, which is in accordance with extent of previously mentioned indicators SE080 (number of LU) and SE025 (total UAA) per farm. When specialized crop farms are analysed it could be noticed that value of total assets is the highest in Serbia, although Bulgarian farms have the highest UAA. This fact could be related to prices of land in various countries (which are by rule estimated by individual farmers involved in FADN sample) and estimated value of agricultural mechanization. Within the observed period at all mixed farms in countries that border with Serbia it comes to increase in value of their assets, while value of assets for crop farms decreased only in Croatia.

Table 3: Total assets (in EUR)

Country	Mixed farms	Farms specialized in crop production	Mixed farms	Farms specialized in crop production
	2015		2017	
Croatia	79,431.00	116,888.00	81,383.00	105,748.00
Hungary	140,966.00	176,403.00	178,410.00	217,531.00
Romania	23,885.00	51,938.00	28,536.00	64,556.00
Bulgaria	33,227.00	191,676.00	48,763.00	235,948.00
Serbia	150,246.00	272,803.00	-	-

Source: According to MAFWM, 2016; EC, 2020.

Although in Serbia value of total assets is high, their value per annual work unit (AWU) is rather small (Table 4.). For mixed farms it is almost twice as low as in Hungary, while the situation is much better for specialized crop farms. Generally, it could be concluded that value of assets per AWU is the highest in Hungary (which has the lowest level of AWU per farm) indicating the highest level of productivity in this county (primarily for mixed farms). That implies that investments in Hungarian farms were oriented towards high capacity fixed assets. Except for Croatian mixed farms, total assets per AWU increased during the period 2015-2017.

Table 4: Total assets per AWU (in EUR)

Country	Mixed farms	Farms specialized in crop production	Mixed farms	Farms specialized in crop production
	2015		2017	
Croatia	56,736.00	70,841.00	55,741.78	71,451.35
Hungary	104,419.00	149,494.00	122,198.63	164,796.21
Romania	23,417.00	48,998.00	26,920.75	57,639.29
Bulgaria	21,860.00	60,275.00	28,024.71	64,999.45
Serbia	63,934.47	124,567.58	-	-

Source: According to MAFWM, 2016; EC, 2020; and author's calculation.

Data related to gross investments (SE516) and net investments (SE521) for mixed farms and specialized crop farms are in accordance with previously mentioned results are presented in the Table 5. and Table 6. The highest gross investments per farm for mixed farms are recorded in Hungary (although by the value of this indicator Serbia was right behind in 2015). On the other hand, Bulgarian farms specialized in crop production have the highest investments level (within this production type), because Bulgarian farmers cultivate the biggest UAA. At the same time, level of gross investments is much higher in crop production comparing to mixed farm type. In majority of observed cases gross investments were increased during the period 2015-2017, which was not the case for net investments. Analysis of net investments revealed that they are also higher for farms dealing with specialized crop production.

Table 5: Gross investments (in EUR)

Country	Mixed farms	Farms specialized in crop production	Mixed farms	Farms specialized in crop production
	2015		2017	
Croatia	711.00	3,058.00	1,479.00	4,474.00
Hungary	5,362.00	8,899.00	7,859.00	7,666.00
Romania	256.00	1,555.00	419.00	2,450.00
Bulgaria	2,348.00	25,224.00	3,065.00	21,382.00
Serbia	5,262.00	7,533.00		

Source: According to MAFWM, 2016; EC, 2020.

Table 6: Net investments (in EUR)

Country	Mixed farms	Farms specialized in crop production	Mixed farms	Farms specialized in crop production
	2015		2017	
Croatia	-1,467.00	-622.00	-946.00	1,023.00
Hungary	495.00	3,697.00	1,127.00	1,380.00
Romania	-489.00	-576.00	-610.00	-126.00
Bulgaria	486.00	10,706.00	206.00	3,801.00
Serbia	2,951.00	3,082.00	-	-

Source: According to MAFWM, 2016; EC, 2020; and author's calculation.

Analysе of net investments revealed significant differences between countries and production types. Mixed farms in Croatia and Romania have negative net investments (investments are lower than level of depreciation, which means that production capacity of such farms is decreasing), while in Bulgaria net investments are positive, although very close to zero. The most favourable situation is in Serbia (in 2015) and Hungary (in 2017). Better performance regarding the net investments is recorded for specialized crop farms. In both observed years in Bulgaria was invested the most, meaning that farmers were increasing their production capacities. In 2015, they invest three times more than Serbian and Hungarian farmers. The worst situation regarding investments is recorded for both types of farms in Romania. They have negative value of net investments during the entire observed period.

Net investments could also be determined per annual work unit (AWU), (Table 7.). AWU is related to regular workforce and is equivalent to “one person working full-time on the holding” (EU regulation 2015/2020). According to this indicator, Serbian farms have the highest net investments per one full time employed person for mixed farms. Concerning farms specialized in crop production value of this indicator in Serbia is lower than at Bulgarian or Hungarian farms.

Table 7: Net investments per AWU (in EUR)

Country	Mixed farms	Farms specialized in crop production	Mixed farms	Farms specialized in crop production
	2015		2017	
Croatia	-1,048.00	-377.00	-647.95	691.22
Hungary	367.00	3,133.00	771.92	1,045.45
Romania	-480.00	-543.00	-575.47	-112.50
Bulgaria	320.00	3,367.00	118.39	1,047.11
Serbia	1,255.74	1,407.31	-	-

Source: According to author's calculation.

Investment subsidies could be useful instrument to support development of agricultural production. Therefore, analysis included subsidies on investments (SE406) and subsidies on agricultural investments (SE409) for observed farm types and countries (Table 8.).

Table 8: Various types of investment subsidies (in EUR)

Subsidies on investments (SE406)				
Country	Mixed farms	Farms specialized in crop production	Mixed farms	Farms specialized in crop production
	2015		2017	
Croatia	0.00	0.00	0.00	0.00
Hungary	1,130.00	413.00	8.00	27.00
Romania	35.00	197.00	21.00	172.00
Bulgaria	446.00	1,536.00	224.00	2,015.00
Serbia	41.00	90.00	-	-
Subsidies on agricultural investments (SE409)				

Country	Mixed farms	Farms specialized in crop production	Mixed farms	Farms specialized in crop production
	2015		2017	
Croatia	9.00	57.00	290.00	1,649.00
Hungary	1,187.00	443.00	74.00	51.00
Romania	1.00	25.00	0.00	6.00
Bulgaria	237.00	1,894.00	500.00	808.00
Serbia	-	-	-	-

*Source: According to MAFWM, 2016; EC, 2020.*

It is not disputable that EUs income and investment support to agri-sector keeps it to sustain in critical situations, or to avoid the slow-down in undertaken reforms. But, it has to be noted that income support compared to investment support takes the much higher share in overall package of subsidies, somehow leading to creation of unstable areas of high vulnerability (Coppola et al., 2020).

In previous table presented comparison is easy between countries which are EU members, because both indicators are recorded. On the other hand, in Serbian Farm Return for 2015 only indicator SE406 is presented. Therefore, it is impossible to make adequate comparison of such subsidies between Serbia and other countries involved in this research. Nevertheless, it could be noticed that in most countries farms specialized in crop production use more investments' subsidies (SE406 and SE409), comparing to mixed farms. The highest level of subsidies on investments (SE406) in 2017 was achieved in Bulgaria, while the highest subsidies on agricultural investments (SE409) in 2017 were recorded in Croatia. In both countries crop production was much more subsidized than mixed type of production. Although the subsidies represent the important instrument of national agricultural policy regarding the development of agriculture and improvement of farm's competitiveness, position and performances (Jovanović, Zubović, 2019), level of subsidies on investments in Serbia in 2015 was rather low.

## Conclusion

Comparing the Serbian mixed and specialized crop farms with the same type of farms in neighbouring countries which are EU member states, it is evident that their size and value of total assets are similar or even higher. It is important that (comparing to neighbouring countries) Serbian farms have significant level of gross and net investments, allowing them to be more competitive. Although farms in Serbia receive rather small subsidies on investments, their total net investments and net investments per AWU are the highest for mixed type of farms (comparing to analysed countries), positively impacting technical and technological development. Such an intensive investment activity allows not only further improvement of livestock production, types which are usually present on mixed Serbian farms, but also development of certain livestock production types which are not present enough (such as cow – calf type of cattle production or goat milk production, whose profitability is closely related to the use of high capacity fixed assets). At the same time, this should be supported by increased level of appropriate subsidies.

Towards the interpretation of mentioned data it should be taken into account that threshold of economic size for FADN in Serbia is 4,000 EUR (the same threshold is implied

for Croatia and Hungary). At the same time, threshold for Bulgarian and Romanian farms is only 2,000 EUR which decreases their average performance when compared to Serbian farms.

Some future research could consider the comparative analysis towards the evidence of public support, i.e. subsidies on investments, based on FADN indicators in Serbia and EU member states.

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SCIENTIFIC REVIEW ARTICLE

DOI: 10.5937/ekonomika2004085T

Received: April, 08. 2020.

Accepted: Jun, 18. 2020.

## ECONOMIC IMPLICATIONS OF THE ROLE OF INSURANCE IN CREATING A SAFE WORK ENVIRONMENT<sup>3</sup>

### Abstract

*Purpose – The purpose of this paper is to point out the connection between insurance and occupational safety and health, thus proving the multidisciplinary nature of these scientific disciplines.*

*Research design/method/approach – Descriptive methods were used to process the data while studying available domestic and foreign literature. In the paper, we will justify the starting hypothesis that linking these two scientific disciplines creates the preconditions for realizing economic benefits both from the level of workers and from the level of the employer and society as a whole. In the first part of the paper the basic concepts of risk in insurance and the economic basis of insurance are presented, while in the second part the basic characteristics of occupational safety are considered.*

*Practical implication – The final part of the paper outlines the basic economic implications that arise from linking insurance and occupational safety and health, which is a practical implication of the paper itself, since linking the aforementioned disciplines is directly related to employers' legal obligations to insure workers from work injury.*

*Originality/Value – Analyzing the domestic and international literature, we find that few authors are concerned with the integration of these two disciplines, which represents the original value of the paper.*

**Key words:** insurance, occupational safety, risk, economic consequences

**JEL classification:** I14, I30, J28

## ЕКОНОМСКЕ ИМПЛИКАЦИЈЕ УЛОГЕ ОСИГУРАЊА У СТВАРАЊУ БЕЗБЕДНОГ ОКРУЖЕЊА ЗА РАД

### Апстракт

*Сврха – Сврха овог рада јесте да се укаже на повезаност осигурања и заштите на раду чиме се доказује мултидисциплинарност ових научних дисциплина.*

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<sup>3</sup> The published paper is the result of research funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia.

*Дизајн/Методи/Приступ – За израду рада коришћена је дескриптивна метода уз процавање доступне домаће и међународне литературе. У раду ћемо доказати полазну хипотезу да повезивање ове две научне дисциплине ствара предуслове за остваривање економских бенефита како са нивоа радника тако и са нивоа послодавца и друштва у целини. У првом делу рада ћемо приказати основне појмове о ризику у осигурању и економској основи осигурања док ћемо у другом делу да се бавимо основним карактеристикама заштите на раду.*

*Практичне импликације – У завршном делу рада ћемо приказати везу између осигурања и заштите на раду што представља практичну импликацију самог рада обзиром да довођење у везу поменутих дисциплина јесте у директној вези са законским обавезама послодавца да осигурају раднике од повреда на раду.*

*Оригиналност/Вредност – Анализирајући домаћу и међународну литературу утврдили смо да се мало аутора бави повезивањем ове две дисциплине што представља оригиналну вредност рада.*

**Кључне речи:** осигурање, заштита на раду, ризик, економске последице.

## Introduction

Massive economic upheaval as a consequence of the global financial crisis and great recession from 2008 to 2010 exposed the vulnerability of economies, both at national and at global level. Nowadays we are faced with the outbreak of COVID 19 virus whose consequences for the world economy cannot be clearly foreseen yet. From the usual GDP growth rate of 2%-6%, we are to witness a situation where the most developed countries will face negative growth. We are compelled to carefully consider all factors that could help us deal with the new challenges that lie ahead of us. The world COVID 19 pandemic could have hardly been foreseen so it was impossible to prepare for that risk. However, a large number of other risks that occur in business activities of legal entities can be identified and appropriate and timely measures adopted to deal with them. Therefore, insurance is brought into play and, in simple terms, it can be seen as a professional risk bearer. By insurance policy between the insurer and the insured, known as the policyholder, the insurer agrees to compensate for the losses that may or may not occur (Novaković et al., 2018). Employers are aware that certain risks could endanger their businesses. Insurance companies identify those risks and, according to strict rules defined by the government, they define the cost of risk transfer (Novaković et al., 2017). All potential risks that legal entities might be faced with cannot be listed. What we know as a fact is that even countries themselves offer a framework of risks that can be insured. It is our belief that the creation of safe work environment - an environment where injuries at work are minimized- increases the business competence of any employer. In most countries, legal acts define that the employers are required to insure their employees against workplace injury. There are different legal solutions, some of which will be presented in the paper together with their advantages and disadvantages. The cost of workplace injuries is huge. Numerous studies show that the costs of workplace injuries

amount to 4% of GDP in every national economy (Todorović & Živković, 2010). The economic implications of unsafe work environment still have not been given appropriate attention, neither in theory nor in practice.

Further effort is required in the process of creating appropriate methods and models which will show an unambiguous relation between the employer's obligation to insure the workers against injuries at work and the overall economic consequences that employers are faced with.

## Methods

Data processing was performed by means of descriptive methods along with the analysis of available domestic and foreign literature.

### The concept of risk in insurance

The need to face risks and manage them by appropriate actions has existed for a long time. Even in the distant past, people wanted to prevent risks that occurred due to people's actions or natural disasters. About 5,000 years ago Chinese merchants used to split their goods and transport them in several boats when crossing the Yangtze River. If a boat and the goods sank, all of them as a group compensated for the loss (Avdalović, Ćosić & Avdalović, 2010). With the development of civilization, the field of insurance has developed, too, with different forms of insurance controlling the relations between the insured and the insurer. The basis of all relations is risk. Risk takes on many forms. One of the main reasons why insurance does not have a more significant role in risk management is the absence of legislation. The absence of clear regulations with clearly stated rights and obligations lead to various manipulations in the past. The insured were often unable to claim compensation although they had paid the insurance premium. This created distrust among policyholders and the insurance has not achieved its full growth yet (Ilić Petković et al., 2019).

The presence of a certain risk implies the need for managing that risk in an effective way. Can employers take measures to reduce risk? Yes, they certainly can. However, there are situations where an employer cannot completely affect the probability of occurrence of a certain risk (Ilić Petković, 2016). Risk in insurance depends on the danger of hazard realization, exposure and sensitivity of the insured property or people to harmful events, and on the insured value (Njegomir & Ćosić, 2012). Risk is part of life and people have always dealt with risks caused by changes in their surroundings, unforeseen circumstances or fraud (Vujović, 2009). There are numerous risk definitions. One of these defines risk as a situation with the possibility of negative deviation from the expected favourable outcome (Andrijanić & Klasić, 2002; Mrkšić & Ćosić, 2015). Thus, risk is the probability of harmful consequences or losses resulting from a given hazard over a specified time period (Ćosić, Popović, Novaković et al., 2019).

Risk is a complex phenomenon consisting of several independent elements which determine its basic characteristics. The basic elements of risk are: uncertainty over the occurrence of an event, hazard, probability of realization and possible damage resulting

from the realization of hazard. There is a tendency, both in theory and practice, to equate uncertainty with risk although uncertainty is only one part of risk. Risk means that a certain desired situation cannot be foreseen, i.e., that its realization is uncertain.

Risk can be measured objectively. The probability and intensity of risk can be determined with high accuracy. On the other hand, uncertainty is a subjective factor. It cannot be measured and its probability and intensity cannot be predicted. Presence of a risk does not necessarily entail presence of danger. For an event to be characterized as hazardous, it has to have the potential to create conditions which lead to damage or destruction of property which is exposed to that hazard. In today's world, hazard realization can be caused by natural, industrial or biological agents (COVID-19). The causes of possible realization of risk and the hazard itself need to be given careful consideration so that a proactive approach could be taken. Apart from hazard and vulnerability, exposure is another precondition of risk. Exposure implies a number of people and/or other elements which are exposed to risk resulting from a certain event (Rejda, 2005).

The probability of damage is defined as the probability of occurrence of a harmful event and it can be presented both objectively and subjectively. The probability of damage creates a need for insurance. If this probability did not exist, there would be no need for insurance (Ćosić et al., 2011; Popović et al., 2012). The objective assessment of probability is based on the frequency of an event, whereas the subjective estimation is based on individual perception. The consequence of a harmful event is material or non-material damage whose effects can be serious and capable of endangering the business activities of an employer in the long or in the short term.

For a risk to be accepted as risk in the field of insurance, it has to meet certain criteria. First and foremost, the risk that we want to insure has to be a future risk. It is irrational to insure past risks or harmful events which had minor or major consequences. The next precondition is that the risk has to be accidental, independent of the will of the insured. Otherwise, the insurer has no interest in concluding the insurance contract. Both the insurer and the insured want the harmful event not to happen. The insured party pays a smaller amount of money for their safety and the insurers cover their expenses and create certain reserves which will help them if the harmful event occurs. It is worth saying that it is impossible to insure every risk. What kind of risk can be insured is clearly defined by law.

The economic benefit of insurance is huge. It considerably increases the economic stability of individuals, companies and whole societies. Throughout history, the ways of defining the subject of insurance have changed, but the basis has remained the same – the presence of risk and the need to protect somebody or something from future uncertainties. The concept of insurance has still not taken off in less developed societies (Cosić, Popov, Novaković et al., 2019). In developed societies, though, where buying power is stronger, the insurance sector can grow and develop. Insurance companies also become initiators of many other activities in a society because proper management of insurance funds creates conditions for appropriate investment of the money collected on insurance policy premiums.

Basic economic principles of successful business conduct are based on productivity, cost-effectiveness and profitability. Productivity can simply be defined as a desire to achieve the best possible results in insurance with the lowest cost of workforce.

The development of modern information technologies contributes greatly to the increase in productivity of insurance companies. Cost-effectiveness deals with the relationship between the achieved result and the costs that were paid to achieve that result. Finally, profitability is an indicator that defines the amount of the invested money and the profit which was achieved in comparison with the invested amount of money. Profitability is the most significant indicator in insurance because it shows how efficiently an insurance company uses the collected money. Profitability wins the trust of potential customers and the created profit is the capital to be invested in long-term projects which result in further increase and accumulation of profit.

## Occupational safety and health

The intensive development of technology in today's world creates conditions for greater safety at work. Occupational safety and health is concerned with fostering a safe and healthy work environment, relying on clearly defined measures and activities to protect the lives and health of employees. The common interest of all subjects, both individuals and the society, is to achieve the maximum degree of protection at work, minimize occupational diseases and injuries, and create conditions in which employees feel safe and satisfied while working (Živković, Taradi & Todorović, 2013). Better working conditions are created through planned activities. These activities should focus on the creation of safe work environment and education of employees. When creating a safe workplace, both the place and the technological solutions that are used in a certain work process need to be considered. One of the best ways of preventing and controlling injuries at work is *the Prevention through Design* (PtD). The PtD concept involves designing the work space, its structure, tools, machines, equipment and systems of work (Todorović, Haznadarević & Knežević, 2016). Apart from workspace, it is important to apply appropriate technical and technological solutions which will enable modern production of goods or services. The equipment and the work process should be designed in such a way that the worker is always in a safe place, at the safe distance from the equipment. Work automation and the use of modern technology prevent direct contact of employees with danger. The result is a smaller number of injuries and their reduced severity. Apart from well-designed workspace, it is necessary to develop a good organizational and safety culture. The number of injuries is not decreasing although ever more employers are using modern technological solutions. Good organizational and safety culture could certainly improve safety and health at work. Organizational culture is the result of learning and interacting internally and externally (Ivanova & Živković, 2013).

According to The Law on Retirement and Disability Insurance of the Republic of Serbia, a workplace injury is an injury inflicted on the insured party, relating in space, time and causality to performing his/her work, based on which he/she is insured, caused by an immediate and momentary mechanical, physical or chemical impact/exposure, a sudden change in body position, a sudden and unexpected exertion of the body, or other changes in the physiological condition of the body. A workplace injury is also an injury inflicted on the insured party in the course of commuting, business trips, or travels undertaken for purposes of starting employment, as well as in other circumstances provided for in

this Law. Health risks at work remain a constant priority of Europe because new risks occur all the time. In 2013, 7.9% of the working population in the EU reported a health problem in connection to work in the previous year (Eurostat, 2017).

A workplace injury results from the combination of four main factors: potential danger, activating factors, activated danger and finally, injury. Any activity that is done in the workplace can be exposed to potential danger (slipping, stumbling, or coming into contact with an electrical voltage). The awareness of these dangers and potential injuries (near-miss) is part of prevention. What determines whether potential danger will become real danger is the activating factors. Activating factors are those activities which are not in accordance with safety measures or instructions on the use of equipment. Only when these factors are activated, a possibility of an injury is created. Does this mean that workplace injuries can be completely avoided? Many organizations boast about “zero injuries”, trying to show their concern for the employees. Still, injuries happen and will continue to happen despite all the protective measures. The real question is whether employers and the country are aware of the costs of work injuries and how these costs affect the business competence of organizations and the quality of life of the employees. Direct consequences of workplace injuries are visible and well known. The problem arises with indirect consequences which are hardly visible and not well known.

The concept of occupational safety has existed for a long time. People have always taken precautions to avoid injuries at work. With the development of technology workers are largely removed from dangerous places. This creates conditions for fewer injuries at work. In the distant past workers had very few rights concerning their safety. Workforce was abundant and the state did not interfere between employers and workers. Employers often took advantage of that situation. With the development of civilization, things have started to change. Countries start passing acts concerning the safety of workers. Employers begin to change their attitude to workers and see the workforce as a significant resource that can enable gaining comparative advantage in the marketplace. Productivity becomes highly valued. Regardless of the development of technology, the worker is the one who is in the centre of the work process and who can considerably affect productivity and, by implication, profitability.

Serious employers are becoming increasingly aware of this fact and they are ready to further invest in the competencies of the workforce because such behaviour increases the competencies of the employers themselves.

### **Economic implications of insurance and occupational safety for business organizations**

Risk realization inevitably leads to disturbances and upheavals which can have far-reaching consequences for the economy and the whole society. It is evident that the economic function of insurance (the insured being bound to pay the premium in advance) creates favourable conditions for setting up funds which can be used at any moment to compensate the insured party. If insurance is seen as an economic category, it is clear that its main purpose is to successfully protect the owner of a property in case of danger, i.e., in case of realization of the insured risk. Insurance companies are of benefit to the modern society and the list of things that can be insured keeps growing. The percentage

of insurance in developed countries is higher than in the developing countries because there is a significant correlation between insurance and the degree of development of a society.

In today's world of open markets, both locally and globally, it is not easy to gain the comparative advantage in selling products and services. For this reason, employers engage in the analysis of expenses, their structure and ways of controlling them and cutting down on them. They realize that costs are considerable in the case of work-related injury leave. According to the International Labour Organization, every 15 seconds a worker dies in an accident at work or as a consequence of a professional disease. Every 15 seconds 153 workers have an accident at work. Every day 6,300 people die as a consequence of workplace injury or professional disease. The number of fatalities every year amounts to 2.3 million (ILO, 2014). Careful analysis of costs shows that apart from the cost of salary for the worker who is on leave (which is 100% salary), there are other considerable costs which are not easily noticed. The economic effect of workplace injury is calculated using the cost of medical treatment, worker's compensation, damaged property, lost income, administrative expenses, etc. (Živković, Petrović & Marković, 2015).

Investing in occupational safety creates better working conditions which further affect the quality and quantity of work. The final result is fewer and less serious injuries, reduction of negative effects connected with workplace injuries, increase in productivity and improvement of business competencies of organizations. However, today's employers need to be convinced to invest in safety at work. To justify investment in occupational safety, it is necessary to have numerous data on lost workdays, cost of gross salary of the injured, cost of damage to equipment which happened during injury, penalties for late delivery, fines, court decisions on injury compensation and an increased amount of the insurance of workers against workplace injury.

The need to observe this issue in a new way has produced a new scientific discipline of engineering economics. New methods are being used to analyze the effect of the number and severity of workplace injuries on the economic principles of productivity, efficiency and profitability. Workplace injuries may lead to huge losses such as loss of income, reduced production, costs of replacing or fixing the damaged equipment, loss of profit etc. Thus, the problem of occupational safety should be considered from the economic perspective, too. A large number of employers still think that the purchase of personal protective equipment is an expense and not an investment. As long as this opinion prevails, there will hardly be a drop in the number and severity of workplace injuries. Therefore, it is necessary to pass laws which will govern this domain and gradually change the beliefs of employers.

Employer's Liability Insurance is a large step in increasing the employers' awareness of the total costs that result from workplace injuries. Employer's Liability Insurance was introduced in Germany in 1883 in order to protect employees from consequences of workplace injuries and professional diseases. There are different solutions in the EU countries, but the bottom line is that the employer bears the cost of insurance if an injury happens at the workplace and if the injury is directly related to the activities at work. In Austria there is the Austrian Worker's Compensation Board (AUVA), professional economic societies (HVNG) in Germany, and the National Institute for Insurance against Accidents at Work (INAIL) in Italy (Spasić, 2003). Countries waiting to join the European Union will have to adjust their legislation to the legislation of the EU.

Workplace injury is a serious risk which, if realized, could endanger the business activities of employers to a greater or lesser degree. Unfortunately, employers are often unaware of the severity of economic consequences arising from workers' injuries. Not only employers, but even states are unaware of the need for managing injury risks. Many countries still have not legally regulated this field by failing to pass the Employer's Liability Insurance Act. The Republic of Serbia is willing to pass such an act, but a lot still needs to be done. Unfortunately, safety culture in Serbia can be described as deficient, which means that legal pressure has to be put on employers and employees in order to create a safe work environment. Analyzing the laws in the neighbouring countries, it can be concluded that there are basically two types of insurance against workplace injuries. With the first type, the starting point is the so-called group methods where the price of insurance is defined through "tables" defined in advance. All jobs are grouped according to risk and accordingly have the same coefficients. This way the amount of money to be paid per an insured person is easily determined. The problem with this method is that it unjustly unifies all organizations from the same group, both those which place a high value on safety and those which do not. The Republic of Croatia is a typical example of this, where a defined percentage of money goes to a specially designed fund for injury compensation simultaneously with paying salaries to employees. The problem with this method is the fact that the percentage is the same for both those employers where no workplace injuries happen and for those where they do happen. Why, then, would the employers care about occupational safety at all?

The alternative to this method is the model of individual charging where every employer is analyzed separately and charged upon the results (lost workdays, number of injuries, etc.). The shortcoming of this method is that insurance company agents are required to have basic knowledge of safety at work so that they could adequately estimate risks, both for the insurer and for the insured. In the developed world, whose part we are striving to become, workplace insurance is an important issue in the business plan of every organization. Insurance agents, analyzing workplace safety in individual companies, define the amount of insurance to be paid for every employee for the coming period. It is in the interest of employers, therefore, to minimize the number of injuries and lost workdays in the defined period.

## Conclusion

In the final analysis, insurance is an instrument that enables active risk management. Grouping employers exposed to similar risks enables protection from the uncertainty of risk over a certain period. This way of looking at insurance increases the business potential of organizations and the whole society. On the other hand, an increasing number of employers are becoming aware of the cost of workplace injuries and are trying to prepare for the potential risk of workplace injuries. Insurance is a helpful instrument in managing the risk of workplace injuries. Employers buy work injury compensation insurance to protect their own interests and to provide better conditions for the recovery of workers in case of injury. In conclusion, the paper has confirmed the hypothesis about the connection between insurance and workplace injuries and that insurance against these injuries contributes to a better and more certain future of employers, employees and the society as a whole.

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SCIENTIFIC REVIEW ARTICLE  
DOI: 10.5937/ekonomika2004095J  
Received: May, 08. 2020.  
Accepted: November, 16. 2020.

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## CUSTOMS WAR OF THE KINGDOM OF SERBIA AND THE HABZBURG MONARCHY AT THE BEGINNING OF THE 20th CENTURY

### Abstract

*After gaining independence at the Berlin Congress, Serbia became the center around which all the surrounding Serbs gathered, seeking final liberation and unification. The great difficulty for a small Serbia was the Austro-Hungarian Empire, which in every way was trying to influence the Serbian internal and foreign policy. In doing so, she succeeded to a large extent during the reign of King Milan, even after his abdication, until the beginning of the XX century. The change in the throne after the May uprising led to the emancipation of Serbia from the influence of the Austro-Hungarian Empire and the influence of other powers, in particular France and Russia. On the other hand, Serbia is increasingly independent in foreign policy and tries to connect with other Balkan states as if it economically strengthens to carry out a national unification mission. That is why the Austro-Hungarian conflict with Serbia on the economic plane, the Customs War, was inevitable. At the same time, this conflict has shown the strength and weaknesses of both countries. Serbia's victory in the Customs War showed her great economic rise, and Austro-Hungary became its fatal enemy.*

**Key words:** Serbia, Austro-Hungarian, Customs War, national unification, Russia, France.

**JEL classification:** G-18, H-2, F-51

## ЦАРИНСКИ РАТ КРАЉЕВИНЕ СРБИЈЕ И ХАБЗБУРШКЕ МОНАРХИЈЕ НА ПОЧЕТКУ 20. ВЕКА

### Апстракт

*Србија је после добијања независности на Берлинском конгресу постала центар око кога су се окупљали сви околни Срби желећи коначно ослобођење*

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*и уједињење. Велика тешкоћа за малу Србију је била Аустроугарска, која је на сваки начин настојала, да утиче на српску унутрашњу и спољну политику. У томе је успевала у великој мери за време владавине краља Милана, па и после његове абдикације, све до почетка XX века. Промена на престолу после мајског преврата довела је до еманциповања Србије од утицаја Аустроугарске и уплива других сила, посебно Француске и Русије. Са друге стране Србија је све независнија у спољној политици и покушава да се повеже са другим балканским државама као и да економски ојача како би спровела мисију националног уједињења. Због тога је сукоб Аустроугарске са Србијом на економском плану, Царински рат, био неизбежан. Истовремено овај сукоб је показао снагу и слабости обе државе. Победа Србије у Царинском рату показала је њен велики привредни успон, а Аустроугарска је постала њен смртни непријатељ.*

**Кључне речи:** *Србија, Аустроугарска, Царински рат, национално уједињење, Русија, Француска.*

## Introduction

After the May coup, the political center of gravity shifted from the court to the assembly and political parties. Introducing civil parliamentarism in Serbia has not been easy, nor has it gone without opposition. In Serbian political life, not only political parties but also background currents that used the court clashed with each other. The intertwined political situation enabled not only all kinds of political alliances and combinations with market movements, but also provided an opportunity for Austrian diplomacy to intervene in Serbia's internal political debates. That is why the internal political situation in Serbia will be of the greatest importance in the period preceding the Customs War.

Since 1903, Serbian foreign policy has abandoned the earlier fluctuations between Austro-Hungary and Russia and joined the western bloc of major capitalist powers, together with Russia (with which strategic interests linked it) first to France and then to England. The reasons for this policy are multiple. Due to the activation of the national program (Lopandić, 2010.p.166-164). in Serbia after 1903, a conflict with Austro-Hungary was inevitable, and therefore with Germany behind it. The program that formed the core of foreign policy after 1903 had two blades, towards Bosnia and Herzegovina and the southern regions (areas south of Shkodra, the area of old Raška, Kosovo and Metohija and Old Serbia with Vardar). If she was not allowed to move towards Bosnia and Herzegovina out of fear of Austro-Hungary, she received a stronger expression of action towards the southern regions. Vienna did its best to thwart Serbia's intentions, primarily by trying to separate it from its natural allies, Bulgaria and Greece, as well as the other Serbian state, Montenegro. Economically, Serbia was trying to break free of the dominant Austro-Hungarian influence, and so there was an increase in imports from Russia at the beginning of the 20th century (Popović 1, 2007. p. 65).

## **Serbia just before the customs war and the reason for it**

The Serbian-Bulgarian economic rapprochement was mutual economic insurance: Serbia to Austria-Hungary, Bulgaria to Turkey. In alliance with Bulgaria, Serbia gained economic independence from the Habsburg Monarchy, Bulgaria gained the conditions for political and economic emancipation from Turkey and the prospect of breaking through Central European markets through Serbia. The conclusion of the Customs Union was linked to a number of secondary issues. Serbia and Bulgaria were facing a new trade agreement with Austria-Hungary, and Serbia was more dependent on it (Đorđević, 1962. p. 125). Also, Bulgaria saw in the Customs Union with Serbia a means of freeing up capitulations and concluding a veterinary convention with the Habsburg Monarchy, while Serbia was obliged by the provisions of the treaty with Vienna to prevent any livestock trade with Bulgaria, as this was a condition of its veterinary convention with Austria-Hungary, and any contrary provision entering the Customs Union would withdraw Vienna's penalties. This 1905 Serbian-Bulgarian treaty has caused much debate. According to one, it was an ordinary trade agreement which for political reasons was given the name of the customs union, where this view was represented by the Viennese and English cabinets, while according to the other, the contract represented the customs union in a broad sense, because it did not contain all the elements that were needed by that alliance. It was at this time that Serbia negotiated a new trade agreement with Austria-Hungary. The old trade agreement between the two countries was valid until January 1, 1904, with a one-year notice period. Considering that her contract violated her interests, Austro-Hungary terminated trade negotiations with Serbia and then declared her a customs war (Đorđević, 1962. p. 127).

The conditions imposed by Austria-Hungary were inappropriate in the relations between the two sovereign states. Namely, Serbia is conditioned to buy artillery weapons from Austro-Hungarian factories, and not from those countries that had the most favorable offer for Serbia. The Serbian government remained firm in its position not to accept these proposals from the Viennese government, as it could become a permanent practice in Austro-Hungarian relations with Serbia (Ćorović, 1997. p. 607).

News of the Customs War in Serbia was received with enthusiasm because the intentions of the Habsburg Monarchy to crush Serbia were so obvious and politically oriented that any indulgence would be characterized as treason and the Habsburg Monarchy declared the culprit. The Serbian government, with great support from the Assembly and much of the public, responded to the Austro-Hungarian pressure by countermeasures.

The internal and foreign political difficulties that the Habsburg Monarchy was in, caused the leaders to fear for its future and integrity. A way out of this situation was found in order to create a new conception of political development by helping new people in the most responsible places, which would preserve the integrity of the Habsburg Monarchy and at the same time raise its reputation in the eyes of Europe. Changes to foreign policy institutions were to consolidate the situation in the country, which would leave some hands on the military and diplomacy in the game of great powers for hegemony in the Balkans.

In order to achieve the foreign policy goals, consolidation within the Habsburg Monarchy was necessary. To this end, the solution to the South Slavic problem was to be

reorganized by reorganizing the South Slavic regions by creating from the inhabitants of Croatia, Slovenia, Dalmatia and Bosnia and Herzegovina, a South Slavic group centered in Zagreb, which was included in the framework of Hungary. This would make Hungary more engaged in settling national movements among the South Slav nations.

After the Habsburg Monarchy concluded that Serbia had secured political emancipation through its economy, it decided to provide transport and strategic advantage in the Balkans instead of trade. When this policy encounters resistance from European diplomacy, especially Russia, the Habsburg Monarchy will declare annexation of Bosnia and Herzegovina (Popović 2, 2007. p. 160-161). In this way, the Austro-Hungarian policy towards Serbia was reflected in three successive offensives: economic or customs war, transport in the New Pazar railway project, and political or annexation of Bosnia and Herzegovina.

## Customs war

When Serbia wanted to enter into a customs union with Bulgaria, Austria-Hungary declared it a Customs War in 1906, believing that it would destroy Serbia with the economic crisis. It is especially important that a year earlier a draft customs union agreement between Serbia and Bulgaria was signed. Although this project should not have been made public, Bulgaria did so to scare Turkey (Jovanović, 1929. p. 89-95). This is just one example of cooperation with new partners and new Serbian trade routes. However, Serbia is winning the Austro-Hungarian Criminal War and developing its industry. Trade has developed faster than population growth in Serbia.

During this period, Serbia had a number of extremely capable politicians and intellectuals in the government. In addition to Pasic and Milovan Milovanović, Lazar Paču, the Minister of Finance, although a doctor by profession, had special importance. He distinguished himself by being an honest and honorable man whose main aim was to protect and empower the Treasury. In this customs war, his role played an exceptional, perhaps crucial, role.

In order to exert political pressure on Serbia, the Viennese government would from time to time ban the import of live pigs, a very important Serbian export item (Pržić, 1939. p. 137). For these reasons, the customs press, which lasted from July 1906 to July 1910, was ironically called the “pig war” (Jerotijević and Jerotijević, 2016. p. 53).

The difficult circumstances in which Serbia found itself were closely followed by a French financial inspector on a mission in Belgrade and a representative of France. Also, there was one German representative in the Administration of the Serbian State Monopoly in Belgrade, Joseph Simon, who was technically a “mute observer” sent to make sure that the Serbian government fulfills its obligations to creditors. The utterly irrational exploitation of the country’s agricultural assets, which are transported to the plains of Hungary for safe, easy, though not lucrative sales, he wrote, is exacerbated by the fact that many Serbian producers are often unaware of the supply and current prices on the world market and which does not have enough docks and warehouses. Because of the latter, manufacturers were often forced to sell their goods at the price offered to them.

The Serbian government responded by raising slaughterhouses to export meat products rather than livestock. In this way Serbia did not export raw materials, live cattle,

but we can say semi-finished products and products, which gave even higher quality to its exports (Sforca, 1991.p.99). The financial negotiations were successfully led by Lazar Paču, who defended Serbia’s fiscal stability during the customs war and beyond.

The Serbian government paid an advance of 200,000 dinars to the Joint Stock Company, and this in return obliged them to buy up to ten thousand pigs for export at the price of 80 pairs per kilogram and to pay the village sellers in cash. By the end of October 1906, the company had exported two hundred tons of fat, bacon, ham and other meat products to Algeria, Marseille, Bordeaux, Hamburg, and by the end of the year, 18,000 pigs had been slaughtered and most of it was processed into pork for export.

The government has been equally successful in organizing the export of prunes and jam (Cvijić, 1987.p.166). She indicated to the peasants that there were other markets for these products and instructed special inspectors to encourage the peasants to adopt better procedures for sorting, preparing and packaging their products. Official newspapers have begun to report on stocks and prices in the world. Thanks to this, the farmers were able to increase their prices by about 20 percent. Total exports of fruit and fruit products in 1906 rose to 65,000 tonnes, up from an average of 57,000 tonnes a year earlier.

Greater difficulties were encountered in organizing cattle exports, but in an effort to overcome this obstacle, the government sent special representatives to Genoa, Thessaloniki, Piraeus and Alexandria. She published special brochures and published reports on the cattle trade in her official newspaper. In addition, it granted certain concessions to the Serbian Export Bank to encourage it to accept export of cattle to Genoa and Alexandria. By the end of 1906, more than 3,000 head of cattle had been purchased for export, and 1,500 had already been exported.

The value of Serbia’s exports in 1906, despite the customs war, was about the same as in the previous year (Stojanović, 2011. p. 7).

Table 1. Exports of Serbia from 1905 to 1907 in French francs

EXPORT COUNTRIES	1905.	1906.	1907.
Austro-Hungarien	64.712.000	30.032.000	12.932.000
Germany	2.116.00	19.053.000	32.925.000
Belgium	323.100	6.259.000	13.010.000
England	0	65.560	2.337.000
Other countries	4.844.900	16.194.440	20.287.000
Total	71.096.000	71.604.000	81.491.000

It should be noted that before the Customs War, Serbia exported large quantities of goods, mainly raw materials and especially live cattle. It should only be noted that during that period Austro-Hungary was the main intermediary in this trade. For example, according to the Serbian Ministry of Commerce, the value of exports to Austria-Hungary from 1899 to 1905 was RSD 396 million, but 203 million, or more than half, were re-exported to other countries, especially Germany and Belgium.

Of particular importance for the outcome of the Customs War was the issue of transport, that is, the transportation of goods from Serbia to foreign markets. Serbia, with the support of its neighbors (Bulgaria and Romania), diverted exports of its goods by water, the Danube, towards the Black Sea, and rail via Bulgaria to Constantinople.

Serbia has established new trade links. The Main Trade Agency was established in Belgrade, establishing trade links with 66 foreign representative offices from different parts of Europe from Stockholm and Amsterdam to Zurich and Moscow (Jerotijević, 2006. p. 105). In 1907, Serbia established 13 trade offices from Alexandria to London (Jerotijević, 2006. p. 105). Considering that Serbia did not experience an economic downturn in the customs war, Austro-Hungarian Foreign Minister von Erental proposed negotiations to Nikola Pašić, who visited Vienna in May 1907. The following year a trade agreement was signed between the two countries, but due to the crisis in the work of the Serbian Assembly, the treaty was confirmed after the new assembly elections on 18 August 1908 (Jerotijević, 2006. p. 106). This contract will not have a longer term because soon the “annexation crisis” about Bosnia and Herzegovina occurred. This crisis almost led to a war between Serbia and Austria-Hungary. As the Austro-Hungarian long-term occupation turned into annexation of BiH, there was great dissatisfaction with the Serb people on both sides of the Drina River. However, the great powers were pushing for no war, which at that moment would probably be devastating for Serbia. In foreign policy, Serbia had to turn to its southern, liberated regions. In these difficult times for the Serbian nation, our diplomacy, led by Milovan Milovanović, has taken one significant step for the Serbian people, raising the Serbian question before Europe (Jovanović, 1990. p. 508-509). Milovan Milovanović, who was Foreign Minister and Prime Minister from 1908 to 1912, made a major contribution to the preparations for the final showdown with Turkey in the Balkans. The prominent Serbian scientist and politician Stojan Novaković (Novaković, 1910) also gave great support to Milovanović.

As for the Customs War, Austria-Hungary was defeated. Serbia has concluded trade agreements with major European countries, and has imported strategic raw materials, petroleum and salt from Russia and Romania. Particularly significant was the loan agreement with France in the amount of 150 million dinars, which partly related to the acquisition of weapons (Đorđević, 2012. p. 107). A new trade agreement was concluded with Austro-Hungary, which entered into force on 24 January 1911 (Jerotijević, 2006. p. 106).

## **Serbia after the customs war**

The customs war has altered the economic influence of the great powers. Since 1904, they have been trying to lend to Serbia the requirements of industry. Financial engagement turns out to be a far more effective instrument for expanding political and economic spheres of influence. Thus, for some time Germany retained its leading role in the arms business, while France gradually became the main trustee of almost all Balkan countries. Since Austria-Hungary has finally been politically discredited since the Customs War and Germany has taken over the financing of its armaments, France has finally been able to win this competition by financing 79% of Serbia's loans. The Entente countries began to dominate Serbia's foreign trade (Stankovic, 1995, p. 30-31).

Customs barriers imposed by Serbia in 1906 hampered the flow of goods but at the same time strongly stimulated the inflow of foreign capital. This actually meant that, as demand for industrial products was still high and protection duties disproportionately increased, many businessmen switched to making their products in Serbia as a target.

They were then able to preserve the Serbian market while simultaneously benefiting from protectionism against foreign competition (Aleksić, 2014).

Thus, in addition to the railway construction loan, foreign financiers were increasingly involved in establishing credit institutions as well as in direct investments in private companies. The impact of the financial capital of economically more advanced countries in the economies of underdeveloped and underdeveloped countries was in fact the result of a long process of transformation of banking, which, due to the growth of industrialization, enabled the financing of various jobs in very remote geographical areas.

About seventy European banks of varying character, size and strength, which at that time made up the elite of European and therefore world banking, showed their interest in the Balkans as well. This phenomenon was of great importance for the emergence and development of private banking in Serbia itself, until the beginning of the 20th century, the entire banking system was based on a large number of small banks and savings banks, which reduced their business activity only to loans to peasants and merchants. Their fragmentation and deconcentration, with quite a small amount of available capital, made it impossible for any serious action towards faster and stronger engagement in the economic life of the country.

After the Customs War, the number of industrial enterprises, including mills, breweries and mines, increased from 100 to 465, then the number of workers increased two and a half times. When it comes to industry and mining, there was an overall growth rate of gross product from 10.75 to 24.38 dinars per capita.

Although between 30 and 35 million dinars of foreign capital had already been invested in 470 Serbian factories by the First World War, small businesses, with a small number of employees, low capital invested and small machinery equipment, still prevailed in Serbia. As early as 1908, more than half of the company employed less than 20 workers. It should be noted that in this period the dynamics of foreign trade relations accelerated and the number of countries with which Serbia maintained economic relations increased.

## Conclusion

According to well-known economic historians, state support has only marginally affected the direction and pace of industrialization in Serbia. Serbia made its breakthrough to more intensive industrialization only after a four-year customs war with Austria-Hungary. However, customs warfare at the same time sharpened the rivalry of the great powers in Southeastern Europe, which only a few years later turned into open conflict. This inevitably leads to the conclusion that it was precisely in the customs war that the beginning of the military conflict and the final showdown, which occurred in the First World War, arose between Serbia and Austria-Hungary. The Austro-Hungarian customs war began with the expectation that the Serbian economy and its finances would quickly collapse. This shows that this great state was not aware of the great regrouping in Europe where two blocs of great powers fought for each country regardless of its size. After the May coup, Serbia had trouble gaining the affection of some of Europe's great powers (especially the United Kingdom), but two other allies, Russia and France, were keen to help squeeze Serbia out of it and its rivals economically, above all Austria-Hungary and

also Germany. Serbia has proven itself to be a promising economy with sufficient internal resources and diplomatic capacity to connect with some distant markets interested in its goods using new routes with the support of neighbors and large powers interested in suppressing the Austro-Hungarian economy in Serbia. The annexation of Bosnia and Herzegovina, we can say, was the Pyrrhic victory of the Habsburg Monarchy. Serbia has been economically empowered and at the same time has received the tacit consent of Russia and France to continue national work in the southern regions. The defeat in the Austro-Hungarian Customs War was very unpleasant given that a small, neighboring country had secured its economic prosperity without its influence. We believe that this is precisely where the germ of a future conflict, the cause of which was the Sarajevo assassination, lies. Austro-Hungary could not allow the creation of a powerful and independent Serbian state, which by its very existence compromised its integrity and hindered its further penetration to the east. The military showdown was only a matter of the moment.

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Наука и пракса = ISSN 0558-3063. - Друго издање  
на другом медијуму: Економика (Online) =  
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