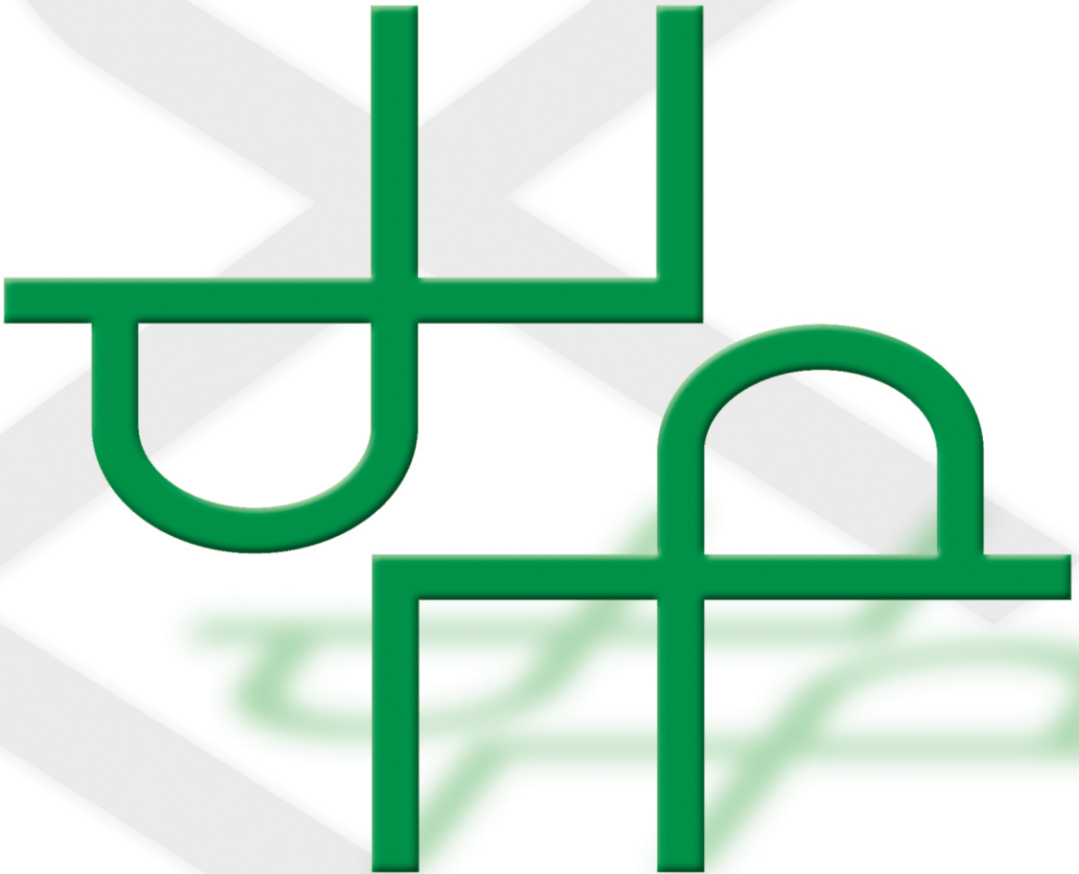


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МЕЂУНАРОДНИ ЧАСОПИС
ЗА ЕКОНОМСКУ ТЕОРИЈУ И ПРАКСУ И ДРУШТВЕНА ПИТАЊА



ЕКОНОМИКА

Часопис излази четири пута годишње

Година LXIII, I-III 2017, број 1

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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 поћев од 1995. добила статус међународног економског часописа.

5. УРЕДНИЦИ: др Јован Петровић (1954-1958), Миодраг Филиповић (1958-1962), Благоје Матић (1962-1964), др Драгољуб Стојиљковић (1964-1967), др Миодраг Николић (1967-1973), др Драгољуб Симоновић (1973-1984), др Миодраг Јовановић (1984-3-4/1988) и др Драгољуб Симоновић (1990-до данас).

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1. The journal EKONOMIKA was initiated in July 1954. It was published as "Nis Economic Messenger" till June, 1957 and as "The Economic Messenger" till the end of 1969. The title "Science and Practice" it had till the issue 1/1973 when it changed its name into EKONOMIKA as it entitled today.

2. The Journal was initiated by the Society of Economists of Nis and the Society of Engineers and Technicians of Nis (the latter remained as the publisher till the end of 1964). The Society of Accountants became its publisher starting from the issue no. 6-7/1958. The Faculty of Economics, Nis, on the basis of its Resolution No. 04-2021 from December 26, 1991, became the co-publisher of EKONOMIKA. Likewise, the Faculty of Economics of Pristina became the co-publisher since in 1992. Starting from 1992, the co-publisher of EKONOMIKA has been the Society for Marketing of the Region of Nis. Other co-publishers of EKONOMIKA included, in the period 1990-1996, the Foundation for Scientific Work of the Municipality of Nis, the Institute for Spatial and Urban Planning of Nis and the Corporation Winner Broker, Nis.

3. The Republic Secretariat for Information of the Socialist Republic of Serbia, by its Resolution No. 651-126/73-02 from November, 27, 1974, approved of EKONOMIKA's requirement to be introduced into the Press Register. The Assembly of the Society of Economists of Nis, at its session on April 24, 1990, by its statutory resolution, confirmed the legal status of EKONOMIKA. At the session of the Assembly of the Society of Economists, Nis, on November 11, 1999, the resolution was adopted the EKONOMIKA was to open its own bank account.

4. According to the Opinion of the Republic Secretariat for Culture of the Socialist Republic of Serbia No. 413-516/73-02 from July 10, 1973 and the Ministry for Science and Technology of the Republic of Serbia No. 541-03-363/94-02 from June 30, 1994, EKONOMIKA has the status of a scientific and national journal. Starting from 1995, EKONOMIKA has been having the status of international economic journal.

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Адрес:
„Экономика” Друштво економиста
18000 Ниш, Максима Горког 5/36

Телефон редакции +381 (0)18 4245 763; 211 443
e-mail: zoki@medianis.net; ekonomika@sbb.rs WEB: <http://www.ekonomika.org.rs>

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Bojan Krstić¹
University of Niš, Faculty of Economics

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Vladimir Radivojević²
Ministry of Defense, Serbian Armed Forces

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Tanja Stanišić³
*University of Kragujevac,
Faculty of Hotel Management and Tourism in Vrnjačka Banja*

TOURISM INDUSTRY AND NATIONAL COMPETITIVENESS: A SUB-SAHARAN AFRICA COUNTRIES PERSPECTIVE

Abstract

The purpose of this paper is to analyse the contribution of competitiveness of the tourism industry on the global competitiveness of 31 sub-Saharan Africa (SSA) countries. The aim is to identify the correlation between the achieved travel & tourism competitiveness level measured by the Travel & Tourism Competitiveness Index (TTCI) and global competitiveness level measured by the Global Competitiveness Index (GCI) in SSA countries. The research is made by applying descriptive statistics, correlation, regression, cluster, and comparative analysis. Research results indicate that there is a strong positive correlation between the GCI and the TTCI, as well as the positive impact of TTCI on GCI in the observed group of countries. The conclusions of this paper provide recommendations to tourism policy-makers in SSA countries.

Key words: *tourism, competitiveness, sub-Saharan Africa countries*

JEL classification: L83, N17

ИНДУСТРИЈА ТУРИЗМА И НАЦИОНАЛНА КОНКУРЕНТНОСТ: ПЕРСПЕКТИВА ЗЕМАЉА ПОДСАХАРСКЕ АФРИКЕ

Апстракт

Циљ овог рада је да анализира утицај конкурентности индустрије туризма на глобалну конкурентност 31 земље Подсахарске Африке (ССА). Циљ је да се идентификује корелација између достигнутог нивоа конкурентности сектора туризма и путовања мереног Индексом конкурентности путовања

¹ bojan.krstic@eknfak.ni.ac.rs

² vladimir.radivojevic@gmail.com

³ tanja.stanistic@kg.ac.rs

и туризма (ТТЦИ) и глобалног нивоа конкурентности мереног Индексом глобалне конкурентности (ГЦИ) у земљама ССА. Истраживање се врши применом дескриптивне статистике, корелационе, регресионе, кластерске и компаративне анализе. Резултати истраживања показују да постоји јака позитивна корелација између ГЦИ и ТТЦИ, као и позитиван утицај ТТЦИ на ГЦИ у посматраној групи земаља. Закључци овог рада пружају препоруке креаторима политике развоја туризма у ССА земљама.

Кључне речи: *туризам, конкурентност, земље Подсахарске Африке*

Introduction

Travel & tourism (T&T) sector is a significant tool in economic growth and job creation all over the world. According to World Travel & Tourism Council (2015), this sector generated US\$7.6 trillion (10% of global GDP) and 277 million jobs (1 in 11 jobs) for the global economy in 2014. This is the reason why the T&T sector is considered as a power vehicle (Rhodri & Long, 1999; World Bank, 2015) and an agent (Page & Connel, 2009; Sharpley, 2015) or even locomotive (Popescu, 2014) and major driver (Bimonte & Punzo, 2016) of economic and social development. The impact of T&T sector on the economic and social development of a country can be huge, because there are several components of socio-economic development on which this sector affect positively (World Travel & Tourism Council, 2015): opening it up for business, trade and capital investment, making jobs and entrepreneurialism for the workforce and protecting heritage and cultural values.

According to World Economic Forum (2015), T&T in sub-Saharan Africa (SSA) has substantial potential for development. Wealth of natural resources and the potential of cultural resources are the key factors of competitive advantages of SSA region. Data from the World Travel & Tourism Council (2015) indicate significant contribution of T&T to GDP, employment and investment in the SSA region. For example, the direct contribution of T&T to GDP was 2.6% of total GDP in 2014. Also, in 2014 this sector directly supported 5,972,000 jobs (2.5% of total employment), while T&T investment was 5.5% of total investment.

However, the SSA region has a small part of the global tourism marketplace. SSA countries received only 3.2% of international tourist arrivals in 2014 (World Tourism Organization, 2015). Also, the SSA „is still mostly in the early stages of development and strongly connected with more general and longstanding development challenges, including infrastructure as well as health and hygiene“ (World Economic Forum, 2015, p. 20). Such position of the region indicates that the potential for tourism growth is significant.

The development of the SSA countries in the future and the progress of the achieved level of competitiveness is based on all factors and resources that lead to the tourism sector development. For that purpose, the aim of this paper is to analyse achieved level of T&T competitiveness in SSA countries, and emphasize the relevance of a T&T competitiveness improvement onto national competitiveness. Also, an important

goal of the paper is to find the factors that are critical for T&T competitiveness in the SSA countries, ie. to find the pillars of T&T competitiveness that must have priority in development policy in the coming period. The results of this analysis should give guidance to policy-makers in setting development strategies and programs in the process of improving T&T sector in SSA countries.

The first section provides a theoretical background and literature review. Research methodology and hypothesis are shown in section two. Research results are discussed in section four. The final section provides conclusions.

Theoretical background and literature review

The concept of global competitiveness is very popular in the analysis of T&T performances of national economies. Measuring and comprehension the global T&T competitiveness of a country is a key prerequisite for policy makers and a significant challenge for researchers in the process of decision making. Dupeyras & MacCallum (2013, p. 7) believe that „tourism competitiveness for a destination is about the ability of place to optimize its attractiveness for residents and non-residents, to deliver quality, innovative, and attractive (e.g. providing good value for money) tourism services to consumers and to gain market shares on the domestic and global marketplaces, while ensuring that the available resources supporting tourism are used efficiently and in a sustainable way”. Tourist destination means „countries or a collection of countries, a distinct state, country or province, or in fact represents a local city, town or resort, a national part, an area of outstanding natural beauty of coastline” (Cooper, Fletcher, Fyall, Gilbert & Wanhill, 2008, p. 475). Under constant competitive pressure in a global market, tourist destinations are constantly looking for ways to increase their competitiveness (Crouch & Ritchie, 1999; Ritchie & Crouch, 2003; Cirstea, 2014). Through appropriate development strategy and proper competitive positioning of destination, a successful tourism industry can lead to regional economic development, as well as being a source of extensive foreign exchange profit.

Because of its great importance on economic and social development, there are numerous studies on the T&T competitiveness of destinations worldwide. Dwyer, Forsyth & Rao (2000) examine the price competitiveness of 19 tourism destinations using Australia as a base country. Skerritt & Huybers (2005) analyse the impact of international tourism on economic development in 37 developing countries, finding a positive correlation between these categories. Hye & Khan (2005) test tourism-led growth hypothesis in Pakistan and „confirm the long-run relationship between income from tourism and economic growth” (p. 303). The study of Zhang & Jensen (2007) suggests that there are parallels between tourism and international trade flows. Similar as Hye & Khan (2005), Tang & Tan (2015) examine the „tourism-led growth hypothesis in Malaysia” and find that „tourism is an effective long-term engine of growth” (p. 1430). Krstić, Radivojević & Stanišić (2016) analyze the competitiveness determinants of the T&T sector in Central and East Europe countries and indicate critical competitiveness pillars for each country.

The competitiveness of the T&T sector in African countries is also present in the empirical studies worldwide. For example, the study of Carlisle, Kunc, Jones & Tiffin (2013) emphasis innovation for tourism development through multi-stakeholder

approaches in Africa. Ayikoru (2015) analyses destination competitiveness challenges in the realisation of a country's tourism potential using Uganda as an exemplar. Krstić, Jovanović, Janković-Milić & Stanišić (2016) examine the T&T competitiveness contribution to the national economy competitiveness of sub-Saharan Africa countries. From a large body of these studies, it is possible to identify the great potential for development of the T&T sector in Africa, particularly in SSA region.

Research methodology and hypothesis

The purpose of this research is to analyse the contribution of competitiveness of the tourism industry on the global competitiveness of SSA countries. The aim is to identify the correlation between the achieved travel & tourism competitiveness level measured by the Travel & Tourism Competitiveness Index (TTCI) and global competitiveness level measured by the Global Competitiveness Index (GCI) in SSA countries. In accordance with the purpose of research, the authors tested the following hypotheses:

H1: *There is the positive correlation between the GCI and the TTCI in SSA countries.*

H2: *There is the positive correlation between the GCI and pillars within the TTCI in SSA countries.*

H3: *The achieved level of the T&T competitiveness in SSA countries has a significant influence on the level of global competitiveness of SSA countries.*

H4: *There is no homogeneity among SSA countries in terms of impact of pillars within TTCI on GCI.*

The research is based on data retrieved from the official periodical publications of *The World Economic Forum (WEF): The Global Competitiveness Report 2013-2014* and *The Travel & Tourism Competitiveness Report 2013*.

The methodology for measuring the competitiveness of countries (*The Global Competitiveness Report 2013-2014*) systematizes the key competitiveness factors into three subindexes and twelve pillars: (1) Basic factors (P1. Institutions; P2. Infrastructure; P3. Macroeconomic stability; and P4. Health and primary education); (2) Efficiency factors (P5. Higher education; P6. Goods market efficiency; P7. Labour market efficiency, P.8 Financial market development; P9. Technological competence/capacity; and P10. Market size); and (3) Innovation factors (P11. Business/business process sophistication; and P12. Innovation). The value of the GCI is the result of measuring many indicators within the each above-mentioned pillars.

The methodology for measuring the T&T competitiveness (*The Travel & Tourism Competitiveness Report 2013*) systematizes the key competitiveness factors into three subindexes and fourteen pillars: (1) T&T regulatory framework (P1. Policy rules and regulations; P2. Environmental sustainability; P3. Safety and security; P4. Health and hygiene; and P5. Prioritization of T&T); (2) T&T business environment and infrastructure (P6. Air transport infrastructure; P7. Ground transport infrastructure; P8. Tourism infrastructure; P9. ICF infrastructure; and P10. Price competitiveness in the T&T industry); and (3) T&T human, cultural, and natural resources (P11. Human resources; P12. Affinity for T&T; P13. Natural resources; and P14. Cultural resources). The value of the TTCI is the unweighted average of the value of above-mentioned subindexes.

In order to test the hypothesis, following research methods are used in the paper: descriptive statistics, correlation, regression, cluster, and comparative analysis.

Research results and discussion

Analysis of SSA countries' competitiveness according to the GCI and the TTCI

Analysis of SSA countries' competitiveness is based on data about rank and score of the GCI and TTCI. Table 1 shows the position of SSA countries according to rank and score of the GCI for 2013, as well, the average score. The *WEF*, in The Global Competitiveness Report 2013-2014, analysed and ranked total 148 countries according to the GCI.

Table 1: The rank and the score of the GCI for SSA countries according to The Global Competitiveness Report 2013-2014

Country	Rank of country in SSA region	GCI score (1-7)	GCI overall rank
Seychelles	5	4.10	80
Mauritius	1	4.45	45
South Africa	2	4.37	53
Cape Verde	14	3.53*	122
Namibia	6	3.93	90
Gambia	12	3.67	116
Botswana	4	4.13	74
Kenya	8	3.85	96
Rwanda	3	4.21	66
Senegal	9	3.70	113
Zambia	7	3.86	93
Tanzania	19	3.50*	125
Uganda	21	3.45*	129
Ghana	10	3.69	114
Zimbabwe	22	3.44*	131
Swaziland	16	3.52*	124
Ethiopia	18	3.50*	127
Cameroon	11	3.68	115
Malawi	25	3.32*	136
Mozambique	26	3.30*	137
Cote D'Ivoire	17	3.50*	126
Nigeria	13	3.57	120
Burkina Faso	27	3.21*	140
Mali	24	3.33*	135
Benin	20	3.45*	130
Madagascar	23	3.42*	132
Lesotho	15	3.52*	123
Guinea	30	2.91*	147
Sierra Leone	28	3.01*	144
Burundi	29	2.92*	146
Chad	31	2.85*	148
Average	-	3.57	-

Note: Symbol * indicates the value which is below the average score of the SSA countries.

Source: *WEF, The Global Competitiveness Report 2013-2014*

Based on Table 1, it can be concluded that Mauritius has the largest score of the GCI (4.45), followed by South Africa (4.37), and Rwanda (4.21). Other countries record relatively uniform values. The lowest scores of the GCI are recorded in Chad, Guinea, and Burundi. The differences are more drastic if we observe ranks of SSA countries on the world list of countries. The best positioned SSA country is Mauritius on the 45th place out of the 148 countries analysed by the *WEF*, while the worst positioned SSA country is Chad, on the 148th place. The average value of the GCI scores of analysed group of countries is 3.57. Table 1 shows that 18 out of 31 countries have a lower GCI score in relation of the average score for the SSA group of countries. In recognition of the fact that the *WEF* ranked total 148 countries, it can be concluded that, except of Mauritius, South Africa, Rwanda, and Botswana, all other SSA countries are located in the second half of the world list according to the GCI score.

Table 2 displays the average scores of 12 pillars within the GCI for SSA countries.

Table 2: The score of 12 pillars within the GCI for SSA countries according to The Global Competitiveness Report 2013-2014

Country	Institution	Infrastructure	Macroeconomic environment	Health and primary education	Higher education and training	Goods market efficiency	Labor market efficiency	Financial market development	Technological readiness	Market sizes	Business sophistication	Innovation	Number of pillars in which particular country records a lower score in relation to the average score of the SSA group of countries
Seychelles	4.33	4.64	4.43	5.90	4.13	4.36	4.69	3.87	3.87	1.46*	4.06	3.32	1
Mauritius	4.58	4.44	4.82	6.01	4.32	4.85	4.45	4.73	3.90	2.80	4.40	3.11	0
South Africa	4.53	4.13	4.39	3.89*	3.94	4.75	3.93*	5.80	3.92	4.89	4.49	3.64	2
Cape Verde	3.93	2.79*	3.67*	5.68	3.71	3.91*	3.74*	3.32*	3.34	1.30*	3.44*	2.83*	8
Namibia	4.22	4.20	4.67	4.43	3.12	4.10	4.39	4.51	3.34	2.66*	3.65	3.02	1
Gambia	4.42	3.43	3.49*	3.95*	3.48	4.07	4.53	3.86	3.09	1.55*	4.00	3.22	3
Botswana	4.67	3.43	5.76	4.55	3.56	4.10	4.51	4.34	3.11	3.03	3.61	2.99	0
Kenya	3.62*	3.24	3.64*	4.52	3.54	4.21	4.62	4.68	3.36	3.58	4.09	3.56	2
Rwanda	5.20	3.20	4.41	5.37	3.00	4.52	5.06	4.23	3.10	2.46*	3.89	3.44	1
Senegal	3.69	2.78*	4.41	4.17*	3.14	4.33	4.33	3.72*	3.26	2.94	3.85	3.18	3
Zambia	4.20	2.76*	4.56	4.41	3.05	4.61	4.12*	4.45	2.97	2.80	4.05	3.36	2
Tanzania	3.55*	2.30*	3.65*	4.64	2.54*	3.89*	4.49	3.72*	2.70*	3.59	3.50*	3.06	8
Uganda	3.33*	2.31*	3.64*	4.35	2.72*	3.88*	4.69	3.90	2.82*	3.28	3.55*	3.04	7
Ghana	3.89	3.03	3.08*	4.48	3.42	4.28	4.14*	4.36	3.21	3.67	3.85	3.27	2
Zimbabwe	3.50*	2.59*	4.01*	4.55	2.95*	3.66*	3.40*	3.56*	2.98	2.12*	3.30*	2.68*	10
Swaziland	3.83	3.34	4.54	3.57*	3.09	4.05	4.01*	4.03	2.72*	2.03*	3.72	2.83*	5
Ethiopia	3.58*	2.61*	3.81*	4.67	2.55*	3.56*	3.99*	3.32*	2.47*	3.74	3.21*	2.76*	10
Cameroon	3.35*	2.49*	4.92	4.43	3.25	4.03	4.19*	3.59*	2.80*	3.26	3.60	3.11	5
Malawi	3.81	2.21*	2.85*	4.43	2.65*	3.90*	4.59	3.96	2.40*	2.50*	3.50*	2.90*	8
Mozambique	3.30*	2.38*	4.34	3.67*	2.34*	3.80*	3.80*	3.13*	2.77*	2.96	3.20*	2.63*	10
Cote D'Ivoire	3.40*	3.13	4.21	3.25*	3.03	3.91*	4.32	3.76	3.03	3.17	3.37*	3.00	4
Nigeria	3.08*	2.29*	5.17	3.04*	3.03	4.09	4.48	4.04	3.08	4.66	3.89	3.00	3
Burkina Faso	3.34*	2.13*	4.44	3.24*	2.39*	3.73*	4.19*	3.17*	2.41*	2.79	2.97*	2.86*	10
Mali	3.02*	3.05	4.44	3.05*	2.55*	3.93*	3.96*	3.38*	2.91*	2.63*	3.52*	3.00	9
Benin	3.36*	2.40*	4.31	4.53	2.95*	3.47*	4.11*	3.33*	2.55*	2.51*	3.23*	2.84*	10
Madagascar	3.09*	2.26*	4.18*	4.52	2.66*	4.07	4.60	2.93*	2.63*	2.73*	3.53*	3.09	8
Lesotho	3.61*	2.56*	5.35	3.56*	2.88*	4.22	4.17*	3.43*	2.45*	1.94*	3.20*	2.47*	10
Guinea	3.06*	1.73*	3.11*	3.59*	2.42*	3.54*	4.28	2.97*	2.43*	2.44*	2.97*	2.40*	11
Sierra Leone	3.62*	2.13*	3.32*	2.74*	2.36*	3.97*	4.09*	3.46*	2.65*	2.19*	3.30*	2.56*	12
Burundi	2.78*	1.92*	3.67*	4.21	2.03*	3.39*	3.84*	2.33*	2.20*	1.71*	2.80*	2.31*	11
Chad	2.54*	1.71*	4.95	2.58*	2.09*	2.83*	3.76*	2.78*	2.09*	2.77*	2.81*	2.41*	11

Average score of the SSA group of countries	3.69	2.83	4.20	4.19	3.00	4.00	4.24	3.76	2.92	2.78	3.57	2.96	
Numbers of SSA countries which record a lower score in relation to the average score of the SSA group	18	19	13	13	15	15	16	16	16	16	17	13	

Legend: * Indicates that the value is below the average score of SSA group of countries.

Source: WEF, *The Global Competitiveness Report 2013-2014*

The last column of Table 2 shows the number of pillars which particular country records a lower score in relation to the average score of the SSA countries. In other words, we can find the critical (problematic) GCI pillars in each SSA country in that way. Each country needs to make the improvements in identifying critical pillars, as the GCI competitiveness factors. This analysis can show in which pillar SSA countries, partially observed, have to perform improvements with the aim to reach the average score of the SSA group of countries. In that sense, the worst performances are recorded in Sierra Leone (negative deviation from the average value in 12 pillars); Guinea, Burundi, Chad (in 11 pillars); Zimbabwe, Ethiopia, Mozambique, Benin, Burkina Faso, Lesotho (in 10 pillars); Mali (in 9 pillars); Cape Verde, Tanzania, Madagascar (in 8 pillars); Uganda (in 7 pillars), Cameroon, Swaziland (in 5 pillars); Cote D’Ivoire (in 4 pillars); Gambia, Senegal, and Nigeria (in 3 pillars).

Mauritius recorded the best result, since this country did not record a lower score in relation to the average score of the SSA group of countries in the case of all 12 pillars. This country is immediately followed by Seychelles, Namibia, and Rwanda (deviation from the average value in 1 pillar), and South Africa, Kenya, Zambia, Ghana (deviation from the average value in 2 pillars).

The last row of Table 2 shows the numbers of SSA countries which record a lower score in the particular pillar in relation to the average score of the SSA group. The Institution pillar, Infrastructure pillar, and Business sophistication pillar are problematic for a large number of SSA countries. SSA countries show the best result in regard with Macroeconomic environment, Health and Primary education, and Innovation pillar.

The general view is that the average value of pillars within the GCI is significantly lower in the relation of the maximum possible score which amounts 7. It brings to conclusion that SSA countries have many possibilities for improvement of their performances that influence on the GCI competitiveness level on the world rank list.

Table 3 shows the position of the SSA countries, according to rank and score of the TTCI. The WEF analysed and ranked total 140 countries in the TTCI list in *The Travel & Tourism Competitiveness Report 2013*.

Table 3: Rank and score of the TTCI for SSA countries according to The T&T Competitiveness Report 2013

Country	Rank of country in SSA region	TTCI overall rank	TTCI score (1-7)
Seychelles	1	38	4.51
Mauritius	2	58	4.28
South Africa	3	64	4.13
Cape Verde	4	87	3.87
Namibia	5	91	3.77
Gambia	6	92	3.73
Botswana	7	94	3.71
Kenya	8	96	3.66
Rwanda	9	105	3.56
Senegal	10	107	3.49
Zambia	11	108	3.46
Tanzania	12	109	3.46
Uganda	13	116	3.39
Ghana	14	117	3.39
Zimbabwe	15	118	3.33*
Swaziland	16	119	3.31*
Ethiopia	17	120	3.29*
Cameroon	18	121	3.27*
Malawi	19	124	3.22*
Mozambique	20	125	3.17*
Cote D'Ivoire	21	126	3.15*
Nigeria	22	127	3.14*
Burkina Faso	23	128	3.12*
Mali	24	129	3.11*
Benin	25	130	3.09*
Madagascar	26	131	3.09*
Lesotho	27	135	2.89*
Guinea	28	136	2.88*
Sierra Leone	29	137	2.87*
Burundi	30	138	2.82*
Chad	31	139	2.61*
<i>Average</i>	-	-	3.38

Note: Symbol * indicates the value which is below the average score of the SSA countries.

Source: WEF, The T&T Competitiveness Report 2013

Seychelles records the highest score of the TTCI among SSA countries (4.51), immediately followed by Mauritius (4.28). Countries with the lowest score of the TTCI are Burundi (2.82) and Chad (2.61). The best-placed SSA country in the world rankings, Seychelles, is located at 38th position out of 140 analysed countries, while the weakest positioned Chad lags behind Seychelles by 101 positions, situated in 139st place on the world list. The average value of TTCI scores for SSA region is 3.38.

Table 3 shows that 17 out of 31 countries have a lower TTCI score in relation to the average score of the SSA group of countries. In recognition of the fact that the *WEF* ranked total 140 countries, it can be concluded that, except of Seychelles, Mauritius, and South Africa, all other SSA countries are located in the second half of the world list according to the TTCI score.

The results of descriptive statistics follow in the second step of this analysis.

The minimum score of the GCI in countries of SSA region is 2.85, maximum is 4.45, standard deviation is 0.40268 and variation coefficient is 11.26%, while the average score is 3.57.

The minimum score of the TTCI in countries of SSA region is 2.61, maximum 4.51, standard deviation is 0.43136, variation coefficient is 12.76% and the average score is 3.38.

Furthermore, very similar results of the standard deviation for the GCI and the TTCI are recorded. There is greater variability and heterogeneity of the sample countries in terms of the T&T development in relation to the variability and heterogeneity of countries in terms of national competitiveness. This is confirmed also by calculation of the variation coefficient for the TTCI and for the GCI.

In order to assess the achievements of the SSA group of countries in each pillar, the average scores of 14 pillars within the TTCI are presented in Table 4 according to *The T&T Competitiveness Report 2013*. The Environmental sustainability pillar records the highest average value (4.59), followed by Affinity for T&T pillar with the average score of 4.54, Price competitiveness in the T&T pillar with the average score of 4.46, Policy rules and regulations with the average score of 4.15, and Safety and security pillar with the average score of 4.03. Bearing in mind that the maximum value of the pillar is 7.00, the SSA countries have many possibilities for improvement performance that determine the competitive position of their T&T industry.

The last row of Table 4 shows the numbers of SSA countries which record a lower score of the TTCI pillar in relation to the average score of the SSA group. The Air transport infrastructure, Affinity for T&T, Ground transport infrastructure, Tourism infrastructure, and Health and hygiene pillar are problematic for a large number of SSA countries (20 out of 31 countries).

Namely, Health and hygiene, Tourism infrastructure, and Ground transport infrastructure are identified as problematic and need corrective action in 19 out of 31 analysed countries. Cultural resources and ICT infrastructure are critical in 18 countries. Human resources are identified as a critical in 17 countries. Fifteen countries have to improve initiatives in the case of the following pillars: Policy rules and regulations, Environmental sustainability, Natural resources, prioritization of T&T, Price competitiveness in the T&T industry, and Natural resources.

When it comes to deviation from the average score of the SSA group (the latest row of Table 4), SSA countries show the best result in regard with Safety and security.

Table 4: The score of pillars within the TTCI for SSA countries according to The T&T Competitiveness Report 2013

Country	P1. Policy rules and regulations	P2. Environmental sustainability	P3. Safety and security	P4. Health and hygiene	P5. Prioritization of Travel & Tourism	P6. Air transport infrastructure	P7. Ground transport infrastructure	P8. Tourism infrastructure	P9. ICT infrastructure	P10. Price competitiveness in the T&T industry	P11. Human resources	P12. Affinity for T&T	P13. Natural resources	P14. Cultural resources	Number of pillars which record a lower score in relation to the average score of the SSA group of countries
Seychelles	4.66	4.57*	4.32	5.01	6.12	4.47	4.81	5.24	3.47	3.76*	4.96	5.86	3.71	2.50	2
Mauritius	5.01	4.49*	5.34	4.85	6.12	3.25	4.60	4.68	3.19	4.48*	5.03	5.75	2.23*	1.60	2
South Africa	4.99	4.74	3.80*	4.20	4.46	3.97	3.79	4.53	2.82	4.55	3.45*	4.85	5.13	2.70	2
Cape Verde	4.86	4.71	4.36	3.58	4.74	3.85	3.53	4.31	2.56	4.35*	4.81	5.43	1.85*	1.72	2
Namibia	4.55	5.00	4.27	3.30	4.39	3.24	3.91	3.84	2.44	4.66	3.52*	4.51*	4.13	1.35*	2
Gambia	4.54	5.01	4.41	3.33	5.21	2.76	4.17	1.65*	2.10	5.67	4.25	5.23	2.78*	1.47*	3
Botswana	4.44	4.71	4.68	3.70	4.35	2.65	3.25	2.97	2.44	5.22	3.57*	4.30*	4.26	1.61	2
Kenya	4.26	5.23	3.19*	1.87*	5.35	2.83	3.23	2.37	2.18	4.31*	4.29	4.73	5.26	1.75	3
Rwanda	5.43	5.54	4.92	2.44*	3.97	2.44*	4.06	1.35*	1.25*	4.63	4.26	4.89	3.73	1.07*	5
Senegal	3.99*	4.43*	4.40	2.37*	4.37	2.58	3.01*	2.71	2.18	3.72*	4.00	4.76	4.07	1.99	5
Zambia	4.96	5.01	4.67	2.29*	3.60*	2.38*	3.17	1.73*	1.94*	4.23*	3.79*	4.36*	4.76	1.49*	9
Tanzania	4.43	4.89	3.70*	1.12*	4.23	2.23*	2.85*	1.69*	1.80*	4.83	4.01	4.53*	5.86	1.66	7
Uganda	4.39	4.76	3.64*	2.12*	3.64*	2.23*	2.89*	1.69*	1.87*	4.83	4.10	4.79	4.82	1.33*	8
Ghana	4.41	4.91	4.25	2.31*	3.42*	2.35*	3.25	2.39	2.26	4.48	4.27	4.26*	3.35*	1.51*	6
Zimbabwe	3.04*	4.59	4.26	2.74	3.74*	2.06*	3.11*	1.93*	2.13	4.58	3.32*	4.34*	4.91	1.66	7
Swaziland	4.27	4.55*	4.30	2.82	4.17	2.11*	3.66	2.16*	2.03	4.86	2.94*	4.38*	2.71*	1.74	6
Ethiopia	3.35*	4.36*	4.34	2.44*	3.49*	2.65	2.78*	1.32*	1.44*	5.09	3.71*	4.16*	4.52	2.06	9
Cameroon	3.96*	4.18*	4.09	2.72	2.97*	2.23*	2.85*	2.08*	1.88*	4.37*	4.23	4.32*	4.53	1.15*	10
Malawi	3.77*	4.77	4.28	2.88	3.16*	1.86*	2.96*	1.53*	1.61*	4.43*	3.75*	4.16*	4.36	1.43*	10
Mozambique	4.32	4.77	3.63*	1.26*	4.20	2.25*	2.42*	2.34*	1.65*	4.05*	3.20*	4.22*	3.71	1.48*	10
Cote D'Ivoire	3.69*	4.28*	3.58*	2.20*	2.79*	2.24*	3.06*	2.60	1.90*	3.86*	3.74*	4.41*	4.15	1.34*	12
Nigeria	3.82*	4.61	3.17*	1.74*	2.94*	2.51	2.77*	2.37	2.20	4.32*	3.78*	4.16*	3.62*	1.75	9
Burkina Faso	3.99*	4.44*	4.02*	2.02*	3.71*	1.99*	2.85*	1.91*	1.68*	4.35*	3.55*	4.38*	3.36*	1.36*	14
Mali	4.04*	4.15*	3.55*	1.56*	3.94	2.23*	3.16*	1.94*	1.85*	3.88*	3.51*	4.60	2.61*	2.39	11
Benin	3.41*	4.60	4.15	1.85*	3.27*	1.98*	2.74*	2.07*	1.95*	4.31*	4.11	4.48*	2.81*	1.40*	11
Madagascar	3.96*	3.95*	3.22*	1.16*	4.39	2.31*	2.46*	2.54	1.66*	4.66	3.95	4.44*	3.08*	1.33*	10
Lesotho	3.83*	3.96*	4.02*	2.33*	3.19*	1.62*	2.65*	2.36*	1.70*	4.66	2.85*	4.59	1.90*	1.13*	12
Guinea	3.27*	4.43*	3.74*	1.87*	2.89*	1.87*	2.22*	1.64*	1.63*	4.56	3.82	4.16*	2.92*	1.21*	12
Sierra Leone	3.81*	4.43*	4.29	1.17*	3.45	1.78*	2.68*	1.06*	1.49*	4.79	3.35*	3.96*	2.76*	1.19*	11
Burundi	4.30	4.21*	3.34*	2.58	2.55*	1.78*	2.89*	1.29*	1.37*	4.32*	3.23*	4.09*	2.56*	1.03*	12
Chad	2.98*	4.15*	3.14*	1.12*	3.10*	1.75*	2.61*	1.30*	1.45*	3.44*	3.29*	3.82*	3.16*	1.03*	14
Average score	4.15	4.59	4.03	2.48	3.93	2.46	3.17	2.37	2.00	4.46	3.82	4.54	3.66	1.56	-
Number of SSA countries which record a lower score in relation to the average score of the SSA group	15	15	14	19	15	20	19	19	18	15	17	20	15	18	-

Legend: * Indicates that the value is below the average score of the SSA group of countries.

Source: WEF, The T&T Competitiveness Report 2013

The general view is that the average value of pillars within the TTCI is significantly lower in the relation of the maximum possible score which amounts 7. It brings to conclusion that SSA countries have many possibilities for improvement of their performances that influence on the TTCI competitiveness level on the world rank list.

The total number of deviations below the average value of TTCI shows that Chad and Burkina Faso are the worst positioned countries (for both countries, these countries have lower values of 14 pillars in relation to the average value of the SSA group). After mentioned countries, Cote D'Ivoire, Lesotho, Guinea, and Burundi also stand out by poorer performance compared to the pillar average score of SSA region. All of the aforementioned countries must necessarily make a lot of efforts to make improvements that bring them closer to the average score of the SSA group of countries. Based on the above-stated analysis, we can formulate the list of critical pillars for the SSA group of countries that need priority in development policies and improvements as soon as possible to reach the average value of the group (Table 5).

Table 5: Specification of factors impacting TTCI - the list of pillars which require improvements and priority of T&T development policy in SSA countries (2013)

Country	The critical pillars which show the negative deviations from the average score of the group of SSA countries	Number of critical pillars
Seychelles	P2, P10	2
Mauritius	P2, P13	2
South Africa	P3, P11	2
Cape Verde	P10, P13	2
Namibia	P12, P14	2
Gambia	P8, P13, P14	3
Botswana	P11, P12	2
Kenya	P3, P4, P10	3
Rwanda	P4, P6, P8, P9, P14	5
Senegal	P1, P2, P4, P7, P10	5
Zambia	P4, P5, P6, P8, P9, P10, P11, P12, P14	9
Tanzania	P3, P4, P6, P7, P8, P9, P12	7
Uganda	P3, P4, P5, P6, P7, P8, P9, P14	8
Ghana	P4, P5, P6, P12, P13, P14	6
Zimbabwe	P1, P5, P6, P7, P8, P11, P12	7
Swaziland	P2, P6, P8, P11, P12, P13	6
Ethiopia	P1, P2, P4, P5, P7, P8, P9, P11, P12	9
Cameroon	P1, P2, P5, P6, P7, P8, P9, P10, P12, P14	10
Malawi	P1, P5, P6, P7, P8, P9, P10, P11, P12, P14	10
Mozambique	P3, P4, P6, P7, P8, P9, P10, P11, P12, P14	10
Cote 'Ivoire	P1, P2, P3, P4, P5, P6, P7, P9, P10, P11, P12, P14	12
Nigeria	P1, P3, P4, P5, P7, P10, P11, P12, P13	9
Burkina Faso	P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14	14
Mali	P1, P2, P3, P4, P6, P7, P8, P9, P10, P11, P13	11
Benin	P1, P4, P5, P6, P7, P8, P9, P10, P12, P13, P14	11
Madagascar	P1, P2, P3, P4, P6, P7, P9, P12, P13, P14	10
Lesotho	P1, P2, P3, P4, P5, P6, P7, P8, P9, P11, P13, P14	12
Guinea	P1, P2, P3, P4, P5, P6, P7, P8, P9, P12, P13, P14	12
Sierra Leone	P1, P2, P4, P6, P7, P8, P9, P11, P12, P13, P14	11
Burundi	P2, P3, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14	12
Chad	P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14	14

Examining the correlation between the GCI and the TTCI and the influence of pillars within the TTCI on the GCI

In order to examine the interdependence between national competitiveness (measured by the GCI) and T&T competitiveness (measured by the TTCI) in SSA countries, the method of correlation analysis is applied. The calculated value of the

correlation coefficient between the GCI and the TTCI is 0.858, and it indicates a strong positive correlation. In this way, it can be concluded that the competitiveness of SSA countries and their T&T competitiveness level is connected. Bearing in mind the above-noted, it can be concluded that the hypothesis H1 is confirmed.

Table 6 shows the correlation between the GCI and pillars within the TTCI.

Table 6: The results of correlation analysis (2013)

Pillar	GCI
TTCI	0.858(**)
P1. Policy rules and regulations	0.705(**)
P2. Environmental sustainability	0.481(**)
P3. Safety and security	0.561(**)
P4. Health and hygiene	0.700(**)
P5. Prioritization of T&T	0.645(**)
P6. Air transport infrastructure	0.706(**)
P7. Ground transport infrastructure	0.753(**)
P8. Tourism infrastructure	0.662(**)
P9. ICT infrastructure	0.694(**)
P10. Price competitiveness in the T&T industry	0.177
P11. Human resources	0.479(**)
P12. Affinity for T&T	0.649(**)
P13. Natural resources	0.270
P14. Cultural resources	0.449(*)

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Source: Prepared by the authors (SPSS Statistics 22)

Analysis of the correlation between the GCI and pillars within the TTCI indicates the existence of a strong positive correlation between the GCI and pillars: Ground transport infrastructure (0.753), Air transport infrastructure (0.706), Policy rules and regulations (0.705), and Health and hygiene (0.700). Moderate positive correlation is found between the GCI and following pillars: ICT infrastructure (0.694), Tourism infrastructure (0.662), Affinity for T&T (0.649), Prioritization of T&T (0.645), Safety and security (0.561), Environmental sustainability (0.481), Human resources (0.479), and Cultural resources (0.449). Weak positive correlation is found between the GCI and pillars Natural resources (0.270) and Price competitiveness in the T&T industry (0.177). Bearing in mind the above-noted and presented in Table 6, it can be concluded that the hypothesis H2 is confirmed.

Results of regression analysis presented in Table 7 indicates that the influence of the TTCI on the GCI is 0.801 in SSA countries. It can be concluded that the hypothesis H3 is confirmed.

Table 7: The results of regression analysis (2013)

Pillar	Regression coefficient				
	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
TTCI	0.801	0.089	0.858	8.982	0.000
P1. Policy rules and regulations	0.173	0.117	0.256	0.256	0.157
P2. Environmental sustainability	0.018	0.198	0.017	0.017	0.927
P3. Safety and security	0.161	0.120	0.215	0.215	0.196
P4. Health and hygiene	-0.056	0.117	-0.141	-0.141	0.641
P5. Prioritization of T&T	-0.036	0.098	-0.081	-0.081	0.719
P6. Air transport infrastructure	-0.290	0.233	-0.487	-0.487	0.232
P7. Ground transport infrastructure	0.295	0.187	0.457	0.457	0.134
P8. Tourism infrastructure	0.332	0.168	0.888	0.888	0.065
P9. ICT infrastructure	-0.153	0.291	-0.194	-0.194	0.607
P10. Price competitiveness in the T&T industry	0.158	0.116	0.180	0.180	0.192
P11. Human resources	0.127	0.155	0.169	0.169	0.425
P12. Affinity for T&T	-0.076	0.243	-0.091	-0.091	0.758
P13. Natural resources	0.137	0.052	0.351	0.351	0.018
P14. Cultural resources	0.189	0.186	0.195	0.195	0.157

Note: Dependant variable GCI

Source: Prepared by the authors (SPSS Statistics 22)

The regression analysis is also used in order to examine the influence of the pillars within the TTCI on the GCI. The results of the analysis show how T&T competitiveness factors (pillars) impact on the level of national competitiveness (measured by GCI). Tourism infrastructure (0.332) and Ground transport infrastructure (0.295) pillar have the highest influence on the GCI among analysed pillars in SSA countries. Cultural resources (0.189), Policy rules and regulations (0.173), Safety and security (0.161), Price competitiveness in the T&T industry (0.158), Natural resources (0.137), and Human resources (0.127) have a modest influence on GCI.

The impact of pillars within TTCI on GCI according to clusters

In order to analyse homogeneity of SSA countries according to impact of pillars within the TTCI on GCI, SSA countries are grouped into three clusters by using cluster analysis. Cluster analysis is the method of multivariate analysis and serves for the classification of countries according to their characteristics. The cluster analysis of the SSA countries according to the pillars within the TTCI determined the following structure of clusters:

Cluster 1: *Seychelles, Mauritius, South Africa, and Cape Verde;*

Cluster 2: *Namibia, Gambia, Botswana, Kenya, Rwanda, Senegal, Zambia, Tanzania, Uganda, Ghana, Zimbabwe, Ethiopia, Cameroon, and Malawi.*

Cluster 3: *Swaziland, Mozambique, Cote D'Ivoire, Nigeria, Burkina Faso, Mali, Benin, Madagascar, Lesotho, Guinea, Sierra Leone, Burundi, and Chad.*

Cluster 1 have the best values of the pillars within TTCI. Cluster 2 includes countries with lower values of the pillars scores within TTCI compared to cluster 1. Finally, cluster 3 consists of the countries with the lowest values of the pillars scores within TTCI.

By applying the method of least squares in the linear regression model, it is estimated the value of the parameters of the regression model, ie. regression coefficients. The values of these coefficients by clusters are shown in Table 8.

Table 8: The value of regression coefficients – influence TTCI on GCI (2013)

Cluster	Regression coefficient				
	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
Cluster 1	0.912	0.886	0.589	1.030	0.411
Cluster 2	1.073	0.263	0.776	4.085	.002
Cluster 3	1.010	0.302	0.694	3.343	.006

Source: Prepared by the authors (SPSS Statistics 22)

According to the values presented in Table 8, in countries grouped in cluster 1 there are weakest impact of TTCI on GCI. Competitiveness in the tourism industry has the strongest impact on national competitiveness in the second cluster, and a slightly weaker effect in the third cluster.

Table 9 displays the values of regression coefficients that show the impact of changes in factors of competitiveness in the tourism industry on the global competitiveness of countries in SSA group, which is differentiated into three clusters.

Table 9: The values of regression coefficients (pillars) by clusters

Pillar	Cluster 1	Cluster 2	Cluster 3
P1. Policy rules and regulations	1.113	0.221	0.303
P2. Environmental sustainability	-1.554	0.099	0.384
P3. Safety and security	0.151	0.102	0.251
P4. Health and hygiene	0.443	0.128	0.123
P5. Prioritization of T&T	0.160	0.144	0.137
P6. Air transport infrastructure	-0.238	0.579	0.424
P7. Ground transport infrastructure	0.359	0.286	0.339
P8. Tourism infrastructure	0.360	0.456	0.152
P9. ICT infrastructure	0.556	0.905	0.138
P10. Price competitiveness in the T&T industry	0.265	0.140	0.010
P11. Human resources	0.166	0.061	0.106
P12. Affinity for T&T	-0.076	-0.811	0.208
P13. Natural resources	0.141	0.057	-0.097
P14. Cultural resources	0.222	0.344	-0.277

Source: Prepared by the authors (SPSS Statistics 22)

Countries from the first cluster will largely contribute to increasing national competitiveness if they focus on strategies and programs to improve P4, P7, P8, and P9 pillar in T&T development policies (Table 9). Countries from the second cluster will achieved this effect if they improve P6, P8, P9, and P14 pillar. At least, countries from the third cluster will achieved this effect if they improve P1, P2, P6, and P7 pillar.

Conclusion

The research covers 31 countries of the SSA region. Most countries are still largely in the early stages of development and strongly connected with more general and longstanding development challenges. Despite the fact that all countries in the region are aware of the potential role of tourism as an economic opportunity and development initiator, most of them do not have the economic potential to improve competitiveness of T&T sector.

The analysis of the T&T competitiveness of the SSA countries in the paper is based on the data about rank and score of the TTCI. According to WEF report, the global rank of the T&T sector in SSA countries is very low. The best-placed SSA country in the world rankings, Seychelles, is located at 38th position out of 140 analysed countries, while the weakest positioned Chad lags behind Seychelles by 101 positions, situated in 139st place on the world list. It is particularly indicative that, except of Seychelles, Mauritius, and South Africa, all the other SSA countries are located in the second half of the world list according to the TTCI score. Such low competitiveness of the T&T sector in SSA countries provides an opportunity for its significant improvement in the coming period. The ambition of this paper is to contribute to the improvement of the T&T sector in SSA countries through the analysing achieved level of the T&T competitiveness in SSA countries and emphasizing the relevance of a T&T competitiveness improvement onto national competitiveness.

The results of empirical research propose verification of all hypotheses. The correlation analysis finds a strong positive correlation between the GCI and the TTCI (correlation coefficient is 0.858), which imply interdependence between national competitiveness of SSA countries and their T&T competitiveness (confirmed H1). Similar as that, the analysis of the correlation between the GCI and pillars within the TTCI substantiates the existence of a strong positive correlation between these categories (confirmed H2). The value of the regression coefficient of 0.801 confirms the significant influence of the achieved level of T&T competitiveness in SSA countries on the level of its global competitiveness (confirmed H3). Finally, there is no homogeneity of SSA countries according to impact of pillars within TTCI on GCI (confirmed H4). Countries from the first determined cluster largely contribute to increasing national competitiveness. All these results suggest that the development of tourism competitiveness in the future could significantly contribute to the improvement of the national competitiveness of SSA countries.

Beside the above-mentioned results, the study identifies a lot of critical factors, i.e. pillars, which limits the level of competitive position of SSA countries. These factors (pillars) should be in the focus of future T&T development policies of SSA countries.

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Branko Mihailović¹
Institute of Agricultural Economics, Belgrade

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MARKETING SERVICES THE HOTEL AND RESTURANT²

Abstract

In recent decades, the service sector is gaining in importance. In a good part of the developed world, its growth takes place very rapidly, and in some countries 60% to 70% of gross national income (GNI) in the services sectors, so that it far exceeds the percentage of industrial or agricultural production. At the same time, customers are increasingly demanding, expecting more value and profits of the services they purchase. In their relations with service companies are trying to gain greater influence on decision-making. Specifically, users are looking for a new relationship based on a new marketing, which is known as relationship marketing. His clear and characteristic feature is the creation and maintenance of long-term mutually beneficial relationships with a defined group of users. Accordingly aim of this paper is to discuss the role of marketing services in the hotel and restaurant through the prism of marketing concept that is tailored to the service sector. The research results show it is necessary to develop a marketing approach that is suited to current trends in the hotel and restaurant, which also provides a significant marketing information base on incentive and restrictive factors of the development of the service sector, which can contribute to the optimization of business decision-making.

Key words: marketing, hotels, restaurants, services, marketing relations.

JEL Classification: M31, L80, L83

МАРКЕТИНГ УСЛУГА У ХОТЕЛИЈЕРСТВУ И РЕСТОРАТЕРСТВУ

Апстракт

Последњих деценија услужни сектор добија све више на значају. У добром делу развијеног света, његов раст се одвија веома брзо, а у неким земљама 60% до 70% бруто националног дохотка (БНД) отпада на сектор услуга, тако да он далеко превазилази проценат индустријске или пољопривредне производње. Истовремено, корисници су све захтевнији очекујући већу вред-

¹ brankomih@neobee.net

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ност и добит од услуга које купују. У својим односима са услужним фирмама настоје да остваре што већи утицај на одлучивање. Наиме, корисници траже нове односе базиране на новом маркетингу, који је познат као маркетинг односа. Његова јасна и карактеристична особина јесте креирање и одржавање дугорочних обострано корисних односа са дефинисаном групом корисника. Сходно томе циљ рада је да се сагледа улога маркетинга услуга у хотелијерству и ресторатерству кроз призму маркетинг концепта који је прилагођен услужном сектору. Резултати истраживања показују да је неопходно разрадити маркетинг приступ који је примерен актуелним трендовима у хотелијерству и ресторатерству, који истовремено пружа значајну маркетиншку информациону основу о подстицајним и ограничавајућим факторима развоја услужног сектора, што може допринети оптимизацији пословног одлучивања.

Кључне речи: *маркетинг, хотелијерство, ресторатерство, услуге, маркетинг односа.*

Introduction

Although in recent years there has been a huge increase in interest in the service sector, the academic literature is not always understood its value. First, economists are paying little attention to the services, considering them completely unproductive. Adam Smith, who wrote in the mid-eighteenth century, separating the production which has tangible results - such as agriculture and industry - and the production for which there is no material result. The latter included the work of mediators, doctors, lawyers and the armed forces, which he described “non-productive” (Smith, 1998). This attitude towards services remained dominant until the second part of the 19th century, the emergence of Alfred Marshall who argued that the person providing the service is a productive as well as the person producing tangible product. Indeed, Marshall realized that material products would not exist or would be futile, that there were a number of services that are provided for the purpose of their production or delivery to users. According to Marshall, a representative who distributes agricultural product, plays an equally important task and a farmer - without providing intermediary services and transport agricultural products from areas where there is a surplus would not be of any use (Marshall, 1997). Today, the service sector, despite some beliefs still unproductive and relatively inferior sector, considerable attention is paid to its direct and indirect economic consequences.

In the development literature on marketing services there has been disagreement about the extent to which services should be regarded as a special area of research within marketing. On the one hand, some have argued that the service contains many important elements that are common goods, which makes it unnecessary marketing services as a separate discipline.

On the other hand, many have pointed to the limitations of traditional marketing principles when these are applied to marketing services. It was stressed that there are differences between the goods and services, which means that the marketing techniques

applied to products cannot easily be used for marketing services. Basic indicators of catering trade show growth of turnover index from 110.6 in 2012 to 122.4 in 2015 (Table 1) which is an indicator of market potential for the use of certain techniques of marketing services.

Table 1. Basic indicators of catering trade, 2012-2015

	2012	2013	2014	2015
Turnover, thous. RSD	60,841,400	64,685,091	65,104,515	67,318,055
Beds	113,385	107,256	102,940	106,102
Turnover, thous. RSD ¹	55,032,101	55,249,090	55,166,002	56,198,655
Indices, 2010 = 100				
Turnover	110.6	117.6	118.4	122.4
Beds	94.9	89.8	86.2	88.8
Turnover ¹	100.1	100.4	100.3	102.2

¹ At 2010 prices.

Source: *Tourism and Catering trade, Statistical Yearbook of the Republic of Serbia 2016, Statistical Office of the Republic of Serbia, p. 358.*

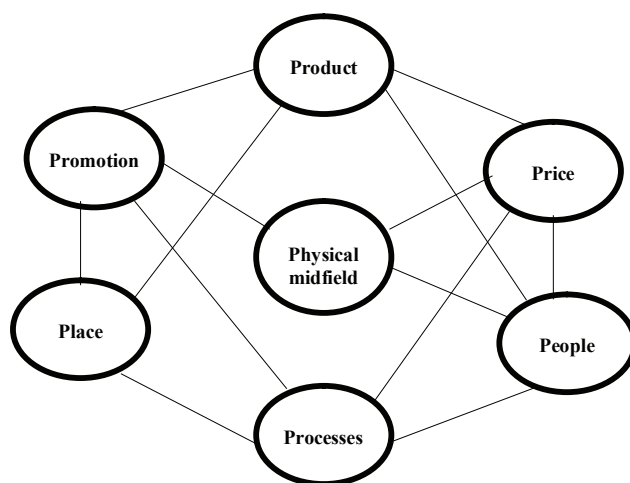
In reality, marketing services engaged in refining the basic philosophy of marketing, in order to enable them to be operational and efficient in the services sector. The services have a number of characteristics that are significantly different from the characteristics of the goods and have an impact on the manner in which the goods are introduced into the market. These characteristics are often described as intangibility, inseparability, variability, mortality, and lack of ownership. Accordingly, the management and marketing activities should adapt to the specifics of the service sector (Cvijanovic, Mihailovic, Vukotic, 2016).

Seven “P” of marketing

“Beg of product marketing” requires additional interest for research services. Traditional marketing and management theory does not provide adequate techniques for the proper characterization services. This critique was later accepted among academics and practitioners. The traditional marketing mix that promotes the marketing of products consists of four well-known “P”: product (product), price (price), the place (placement), promotion (promotion). The principle of the marketing mix has been criticized because it is not comprehensive because it does not take into account the needs of the user administration. Accordingly, created a list of seven “P” is added to the initial elements: people (participants), the physical environment and processes (Figure 1). The first “P” - product, refers to a service and satisfaction that is provides. The second “P” - the price of service is to compensation that is received in the form of monetary compensation, while the third element of the city, or location (offices, restaurants, etc.), Where there is an exchange. The fourth element relates to the promotion. The last three elements are added to take into account the service dimension of the continuum of services to products (Cvijanovic, Mihailovic, 2010). Unsurprisingly, the researchers latter three “P” call service elements. Delivery of services is characterized by processes. They represent

the functional characteristics of services relating to how services are delivered. On the other hand, the product is a technical service quality and refers to what is delivered. The need for this extension is the result of a high level of direct contact between the company and the customer, as well as the fact that the process of providing services to a large extent visible, due to the simultaneous production and use. The principle of the extended marketing mix (with the traditional marketing mix) refers to the division of the service offers a number of component parts and their arrangement in the area that can be controlled when making strategic decisions in the hotels and restaurant.

Figure 1. Elements of the marketing mix for services - “7P”



Prices indices of catering services (*Table 2*) show a certain price stability in the Republic of Serbia in 2016. Namely, prices indices of catering services are among the changes in the general level of prices of services in restaurants objects. The index measures price changes in time, where for both periods being compared is use structure of turnover in catering facilities in the base period. Reporting units are hotels, restaurants and self-service restaurants. List of objects has been defined at the beginning year does not change during the year and includes all categories of hotels and restaurants. Recording is performed monthly periodicals, from 20 to 23 in a month (Prices indices of catering services in the Republic of Serbia, 2016).

Table 2. Prices indices of catering services in the Republic of Serbia, December 2016

	XII 2016 Ø 2015	XII 2016 XI 2016	XII 2016 XII 2015	Ø 2016 Ø 2015
Republic of Serbia				
Total	99,4	99,1	99,6	99,8
Food	101,8	100,1	101,1	100,7
Hot and cold hors d'oeuvres	100,5	100,1	100,2	100,4
Entrees	102,4	100,1	101,4	101,2

Roast and cooked to order	101,6	100,1	101,1	100,5
Stews	99,9	100,5	99,6	99,6
Salads	103,3	100,1	102,2	101,4
Bread	101,3	100,0	99,9	100,7
Sweet stuff	103,4	100,0	102,2	101,9
Alcoholic drinks	102,8	100,2	101,6	101,8
Non-alcoholic drinks	100,3	100,1	100,1	100,2
Accommodation	87,5	93,1	92,0	94,4
Vojvodina				
Total	102,1	100,2	100,7	101,6
Food	102,6	100,3	101,0	102,0
Alcoholic drinks	103,2	100,0	102,1	102,1
Non-alcoholic drinks	100,9	100,0	100,3	100,7
Accommodation	99,2	100,0	97,4	100,0

Source: Prices indices of catering services in the Republic of Serbia, December 2016, Report CN51, Number 005 - LXVII, Statistical Office of the Republic of Serbia, 10.01.2017.

Manage services for hotels and restaurants involved in supply chain management between sales and customers. The goal of management services is to optimize service procurement chains, which are typically more complex than those in typical supply chains of the final product. Most of the service supply chain must meet the inconsistent and uncertain demand, educating more detailed information and product flows. Furthermore, all processes must be coordinated among the many service locations, with a large number of parts and at multiple levels in the supply chain. Among typical manufacturers, after-sales services, which include maintenance, repair and replacement parts - make up less than 20% of revenue, but among the most innovative companies in the services - the same activities generate more than 50% of the profits.

To develop and maintain customer loyalty in a competitive environment, hotels and restaurants now realize the need to improve services and service management. The main drivers for the design and optimization of service management are: reducing the cost of merging the chain of procurement of services and products; service parts inventory levels can be reduced, and therefore can reduce the total cost of inventory; higher income from services; reducing the cost of service parts obsolescence better anticipation; a higher degree of customer satisfaction; lower costs.

The principles and characteristics of services marketing

There are many definitions of what constitutes a service. Contemporary definitions of services focused on the fact that the service itself does not provide any material product, although it may be a means for the production of a material product. Contemporary definition given by Kotler, Armstrong, Saunders i Wong: The service is an activity or profit that one party can offer to another which is essentially intangible and does not result in ownership of something. Its output may or may not be associated with a physical product (Kotler et al., 1999).

“Economist” offers one of the simpler definitions when describing services as “everything you cannot fall at the feet” (<http://www.economist.com>). Bearing in mind all the above definitions, we can say that services are essentially intangible producing profits, either by themselves or as part of the material of the product, which runs through some form of exchange and the need to meet the target. This definition recognizes that the majority of the product is essentially a combination of goods and services. In some cases, the service element will be the main element of services (consultancy work), while in other cases the provider easily support the provision of material goods (for example, a loan service that goes along with the sale of a new car).

In the development literature on marketing services there has been disagreement about the extent to which services should be regarded as a special area of research in marketing. On the one hand, some have argued that the service contains many important elements that are common goods, which makes it unnecessary marketing services as a separate discipline. That is why Levitt remarked that “there is something like a service economy, but only of the economy in which the service component is higher or lower than those of other economies” (Levitt, 1981). On the other hand, many have pointed to the limitations of traditional marketing principles when these are applied to marketing services. Rathmell (1966), Shostack (1977) Grönroos (1978), Berry (1980) and Lovelock (1981) were among the first critics who claimed that there are differences between the goods and services, which mean that the marketing techniques applied to products not can be easily used for marketing services. In reality, marketing services engaged in refining the basic philosophy of marketing in order to enable it to be operational and efficient in the services sector. Many of these principles will be similar to those associated with the marketing of goods and can be applied to services with relatively small changes. In some cases, it must open a new area of marketing thought. Services have a number of different characteristics that separate them from the goods and have an impact on the way we are introduced to the market. These characteristics are often described as intangibility, inseparability (production site of the place of consumption), variability, mortality, and lack of ownership.

Intangibility, The service is a work of performance art or effort, not an object, device or thing (Berry, 1980). The pure service cannot be estimated physical senses; it is an abstraction that cannot be directly investigated before buying. Potential buyer of most goods can explore the edge and sees her physical appearance, aesthetic phenomenon, taste, smell, etc. Accordingly, it is necessary to provide information about the quality of service. For example, the company McDonald does this by controlling the physical environment of their restaurants and used the golden arches as a sign of its brand.

Indivisibility, Production and consumption of material goods are two separate activities. Companies usually produce goods in one location and then transported to another city, where the majority of users want to buy it. In this way manufacturing companies can achieve higher production centralized organization and checking quality. The manufacturer also can make the goods at the time when it is appropriate, then that presents a user in another time, that would be the appropriate user. Therefore it is said that the production and consumption of separate processes. On the other hand, the consumption of services is inseparable from the production. The consumer has to come into the service capacity of the service provider or they will have to come with consumers (Ljubojevic, 2001).

Variability, in services, the variability affects the users, not only in terms of outcomes, but also in terms of the production process. In this second count variable character of the service can be a much bigger problem, in comparison with the goods. As the user usually involved in the production of services at a time when it is consumed, it will be difficult to do the monitoring and quality control, to ensure consistent standards.

The passing rate, Services differ from goods among other things, in that it cannot be stored. Car manufacturer cannot sell all of its production in the current period may keep inventories that will sell in the future. The only significant costs are the costs of storage, the financial cost and the possibility of loss due to obsolescence. By contrast, producer services, which cannot sell everything that is produced in the current period does not have any way available to achieve sales in the forthcoming period.

The absence of ownership, this feature of the services associated with the characteristics of immateriality and impermanence. When purchasing goods, customers usually become owners of the product and can then work with them whatever they want (even they do not have to take advantage of the intended use). On the other hand, when the service is provided, there is no transfer of ownership from the seller to the buyer. The customer pays only entitled to process services.

Understanding customer expectations

The total number of overnight stays in the Republic of Serbia in 2015 amounted to 6,651,852 (*Table 3*), with the largest share of the: hotels (47.4%), spa cures (8.6%), garni hotels (6.8%) and overnight stays (6.7%). At the same time, the spatial distribution of overnight stays is as follows: spas (1,854,582), mountain resorts (1,661,487), other tourists' resorts (1,130,209), other resorts (221,990).

Table 3. Tourists' nights by type of tourist resorts and accommodation establishments, 2015

	Total	Of which			
		Spas	Mountain resorts	Other tourists' resorts	Other resorts
TOTAL	6,651,852	1,854,582	1,661,487	1,130,209	221,990
Hotels	3,150,931	525,489	745,847	599,481	103,906
Motels	26,744	975	1,831	16,174	7,764
Apartments	122,814	3164	81,585	7,505	398
Tourist settlements	40,831	0	21,033	8,876	766
Boarding houses	26,482	3,724	22,758	0	0
Overnight stays	448,186	66,423	97,827	189,698	53,144
Inns	60,694	11,981	3,542	35,309	9,544
Garni hotels	449,381	34,196	3,522	108,070	3,486
Apart hotels	155,473	24,970	124,224	0	0
Spa cures	568,744	565,951	0	2,793	0
Climatic cures	214,917	108,665	106,252	0	0
Mountain shelters and huts	26,022	0	25,971	51	0
Workers' resorts	81,050	21,480	58,316	1,254	0
Youth and children's resorts	363,853	24,616	317,735	11,876	9,626

Hostels	186,937	138	18,660	35,002	0
Camp sites	27,910	0	1,792	20,671	0
Camping grounds	19,020	369	184	468	1,535
Private rooms	310,687	163,094	25,447	64,595	24,111
Private houses	331,090	297,825	1,180	25,830	4,433
Rural Tourist household	4,910	791	400	1,876	1,843
Dining and sleeping cars	24,972	0	0	0	0
Hunting lodges and cottages	238	70	0	0	168
Other	9,966	661	3,381	680	1,266

Source: *Tourism and Catering trade, Statistical Yearbook of the Republic of Serbia 2016, Statistical Office of the Republic of Serbia, p. 354.*

Analysis of accommodation facilities by types of tourist resorts and facilities in 2015 (Table 4) hat the largest number of rooms offered are: hotels (15,728), Private rooms (7,473) and Overnight stays (3,745)

Table 4. Accommodation facilities by types of tourist resorts and facilities, 2015, As of 31 August

	Total	Of which			
		Spas	Mountain resorts	Other tourists' resorts	Other resorts
		Rooms			
TOTAL	45,396	11,588	7,455	11,314	4,055
Hotels	15,728	2,296	2,768	3932	869
Motels	347	10	17	219	101
Apartments	927	28	714	95	4
Tourist settlements	231	0	105	48	20
Boarding houses	73	16	57	0	0
Overnight stays	3,745	445	711	1,648	584
Inns	563	94	46	286	118
Garni hotels	2,257	195	37	757	36
Apart hotels	517	60	418	0	0
Spa cures	1,979	1,899	0	80	0
Climatic cures	812	357	455	0	0
Mountain shelters and huts	165	0	164	1	0
Workers' resorts	394	124	250	20	0
Youth and children's resorts	1,023	75	714	181	53
Hostels	2,001	6	119	590	0
Camp sites	1,771	0	172	1,572	0
Camping grounds	3,087	300	80	20	937
Private rooms	7,473	4,524	363	1,313	1,142
Private houses	1,738	1,029	173	419	107
Rural Tourist household	383	98	92	141	52
Dining and sleeping cars	73	0	0	0	0
Hunting lodges and cottages	29	5	0	0	24
Other	80	27	0	0	8

Source: *Tourism and Catering trade, Statistical Yearbook of the Republic of Serbia 2016, Statistical Office of the Republic of Serbia, p. 355.*

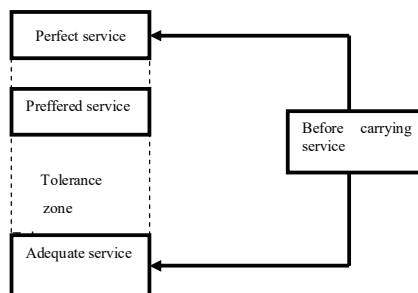
In modern business conditions, human resources are treated as the most important factor of growth and development of hotel and each company (Blagojevic, Redzic,

2009). Namely, understanding customer expectations is a prerequisite to provide quality services to hotels and restaurants. The scope of their expectations can be displayed in five dimensions of services, each of which is equally important (Danciu, 2007):

- Reliability. Customers expect that service firms can provide the desired service accurately and consistently, which refers to keeping promises in the provision of services and safeguarding reputation;
- Appearance. Physical appearance, looks like the equipment or employees, is one of the factors by which customers evaluate the service company. Material things influence the perception of quality of service by providing direct signal on the nature and quality of the service itself, and indirectly, by offering its physical aspects in the provision of services. Users expect that all these aspects are in line with the promise to have a certain level of quality.
- Readiness. Users appreciate the desire of companies to provide services quickly and efficiently, as well as the responsibility, which means that it will inform customers about the characteristics of the service before, during and after purchase service.
- Trust. This dimension of the service is the result of knowledge, courtesy, professionalism of staff, and formulations ability to achieve trust among users.
- Sensibility. Users want to be a service company understands. Therefore, they expect attention and communicate at a level that can be understood by the people who will listen to them.

Because services are characterized by heterogeneity, consumers learn to expect variation in the delivery of services from one location to another, and even from the same provider for a time period (Ljubojevic, 2001). In fact, consumers who accept this variation develop a zone of tolerance, which refers to the difference between the desired and appropriate services provided. Consequently, the user expectations in relation to services, there are two levels: the desired and adequate (Danciu, 2007). The desired level of service is a service for which the user hopes to get it, and the appropriate level of services that the user considers acceptable. It is partly based on an estimate of the user of what the service will be, that is, of “planned services” users. By separating the desired service from the corresponding service receives the tolerance zone, as shown in Figure 2.

Figure 2. Model of consumer expectations



Source: Zethaml, A.V., Berru, L.L. and A. Parasumaran (1993): “The nature and determinants of customer expectations of services”, *Journal of Academy of Marketing Science*, Vol. 21 (Winter), pp. 1-12.

Tolerance zone expands and contracts like an accordion, following these two levels of service. It can vary from user to user and from one situation to another with the same user. How do users consider the substance of the reliability of service and have higher expectations for this aspect, it seems to be the least willing to lower the threshold of expectations this aspect.

Therefore, the tolerance zone service reliability over time is likely to be smaller, a desired and appropriate levels of services likely to be higher. User expectations for acceptable service are influenced by the specific conditions and circumstances, and are therefore more volatile than expectations about the service. The most important factors that are subject to reasonable expectations of users of the service are a number of possible alternative services and emergency services. If users feel that they have other options to obtain the required services, then their zone of tolerance is less than when they do not have other options. The urgency of services temporarily raises the level of appropriate services and thus restricting the zone of tolerance.

For several decades there is a belief that marketing service companies brings with it additional challenges for marketing managers. These challenges arise from the unique characteristics of services (Jobber, Fahy, 2006). In practice it may be difficult to distinguish services from goods, because every time a product is purchased, there is a chance that there is a service element involved. Similarly, the service is often complemented by the material product. In this way, the car can be considered before the goods rather than services, yet cars are usually sold with a number of elements of intangible services, such as guarantees or financial incentives. On the other hand, the seemingly intangible service, such as passenger arrangements, contains the material elements - the use of airplanes, hotel rooms and buses for transportation, for example. In between is a wide range of products that are a combination of material goods (food, physical environment) and intangible services (preparation and delivery of food, reservation services, etc.).

Consequently, rather than the existence of the service sector as a homogenous group activity, it is better to talk about the level of service orientation (Hamović, Mihailovic, Simonovic, 2010). All production activities can be placed on the scale somewhere between pure service (without any material product) and clean goods (without any intangible services). In practice, most of the products it locates somewhere between these two extremes and there is a combination of goods and services. Many products have a material, as well as services, not being able to pre full control spending. For example, usually is not possible to assess the quality of wine in the supermarket when done shopping. Experts in marketing services have learned a lot from the marketing activities of the productive sector and vice versa. Consequently, in formulating business strategies need to take into account the specifics of maximum business environment is changing and turbulent (Mihailović, 2007).

Shostack (1977). Tried to analyze the elements of services in terms of the molecular model components related products and services. Applying this principle, the offer of air transport is an essential intangible - and this is a service of transport. However, the whole package service offer comprises the material elements, such as airplanes, as well as the intangible elements, such as the frequency of flights, their reliability and quality of service. When many of these intangible elements divided into its constituent parts, they also contain substantive elements so that transport services also include tangible items, such as food and beverages.

Conclusion

The service sector has become the dominant power of many national economies. It seems that there is a close link between the level of economic development and the strength of the service sector, although it was not established whether the strong service sector leads to economic development or only its consequence.

Attraction and retention are the main goals in the profession of management relations and marketing in the hotel and restaurant. Retaining existing customers is the primary goal of relationship marketing. To achieve this goal, the service company must be prepared to timely notice and take notice of people who decide to no longer use the services of the company, and then to analyze their actions and plan future activities on the basis of available information and knowledge. In other words, the management of relationships with service users must pay attention to the specific causes that lead to the fact that some people “leave” the company.

Managers are expected to ensure that the entire organization realizes the importance of customer retention. The introduction of incentives, planning and proper financing of business activities, it is necessary to encourage employees to minimize mistakes. More importantly, managers must use mistakes as a tool for continuous improvement in the quality of services provided to users.

Previously, the company sought to find and provide that value, which is seen as a “product”. In relationship marketing, the user helps utility companies to provide certain set of values that the user wants, and since the company is expected to plan and adapt their business processes, communication, technology and employees achieving values that the user wants. Relationship marketing recognizes that this is the right value for the user over a long period of time, where, in the process of identifying these values, tends to be more all come together and firmly connect with users.

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Goran Milovanović¹
Slavoljub Milovanović²
University of Nis, Faculty of Economics
Goran Radisavljević³
Municipality of Sokobanja

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GLOBALIZATION - THE KEY CHALLENGE OF MODERN SUPPLY CHAINS

Abstract

The aim of the paper is to present challenges generated by globalization in modern supply chains. First, authors point to the fact that, today, companies cannot successfully fulfill the requirements of customers and increase global competitiveness without establishing close relationships with key suppliers and without better coordination of internal and external flows of materials. Then, the focus shifts to the importance of harmonizing relations with suppliers and distributors to increase the company's supply chain resilience to global environmental impacts. The final part presents responsibility of production managers, procurement managers, and other professionals to implement strategies that would enable the development of flexible and cost-efficient supply chains, more resistant to environmental changes.

Key words: *Supply chain, globalization, Strategy to increase the number of suppliers, strategy to increase inventory levels, operational hedging, financial hedging.*

JEL Classification: F69, M160.

ГЛОБАЛИЗАЦИЈА - КЉУЧНИ ИЗАЗОВ САВРЕМЕНИХ ЛАНАЦА СНАБДЕВАЊА

Апстракт

Циљ рада је да се презентују изазови које генерише глобализација за савремене ланце снабдевања. Најпре се указује на чињеницу да данас компаније не могу успешно испунити захтеве купаца и повећати глобалну конкурентност без успостављања блиских односа са својим кључним добављачима као и без унапређења координације интерних и екстерних токова материјала. Затим се образлаже значај усклађивања односа са добављачима и дистрибутерима компаније ради повећања отпорност ланца снабдевања на утицаје глобалног окружења. На крају се презентује одговорност менаџера производње,

¹ goran.milovanovic@eknfak.ni.ac.rs

² slavoljub.milovanovic@eknfak.ni.ac.rs

³ radisavljevic.goran1964@gmail.com

набавке и других професионалца за имплементирање стратегија које би омогућиле развијање флексибилнијих, трошковно ефикаснијих и отпорнијих на промене окружења ланца снабдевања.

Кључне речи: ланац снабдевања, глобализација, стратегија повећања броја добављача, стратегија повећања нивоа залиха, оперативни *hedging*, финансијски *hedging*.

Introduction

The term *globalization* has been used in reference works and business practice for three decades now, and generally involves a series of complex economic, social, technological, cultural, and political changes taking place around the world. Globalization of business is not a straightforward process. It is often seen as a process with positive effects, because it allows people and companies around the world to connect to each other. According to the opposite view, globalization of business is a process under the control of multinational companies, which allows them to significantly control global flows of capital and increase exploitation of primarily poor countries. Therefore, one could say that globalization is new and the highest stage in the development of multinational companies. Modern stage of the process of globalization stands for the project and idea of an integrated international market, and, therefore, its emphasis is on the economic aspect of globalization (Veselinović, 2013, p. 371).

Two key categories in the process of globalization are global market and global product. Economies of scale require the existence of the largest possible market that will not restrict the use of production capacities. The emergence of a global product that is used all over the world shows that the market is near its maximum limits (Todorović, and Marković, 2013, p. 13).

Due to globalization of business, supply chains are becoming more complex. Consumers demand innovative products at the right time and at a reasonable price. In such circumstances, managers find it increasingly difficult to create responsive and cost-effective supply chains.

One of the biggest challenges facing companies is finding ways to reduce the costs of their supply chain. In order to meet expectations of consumers regarding price, companies are moving production to countries with low costs and try to directly or indirectly minimize allocation for taxes. However, doing business with global suppliers can lead to increased complexity of supply chains and extension of the product delivery period. In such conditions, responsibility of managers to implement adequate strategies to reduce the risk of supply chains increases.

1. Critical challenges of global supply chains

Globalization is one of the greatest paradoxes of the past three decades. On the one hand, globalization should provide a nearly endless choice to individuals, which would lead to homogenization of the whole of humanity. On the other hand, it should provide globally-oriented companies with a chance to *increase economies of scale*. China today is a country of choice of major manufacturers, while service sector is mainly located in India.

Globalization allows multinational companies to shift from the logic of independent investors in foreign projects to the logic of leaders of global networks that integrate sources of supply, production capacities, knowledge, and consumers from around the world. Thus, in conditions of globalization, multinational companies focus on the integration of their activities at a global level, to coordinate and take advantage of the connections between different locations (<https://www.ukessays.com/essays/business/globalization-of-markets.php>). In such conditions, these corporations seek to expand their operations to “the same level” in different supply chains in which they are included. At this level, efforts of multinational companies in relation to coordination are focused on increasing “*parallel*” (“*horizontal*”) interdependence. This is a static view of globalization. It is based on the assumption that globalization is mainly related to coordination of ongoing activities within one and the same company, and that it happens in a static environment.

The static view of globalization is not complete. Empirical studies have shown that companies globalize largely through mergers, acquisitions, and strategic alliances. In these cases, globalization is mostly related to the coordination of a large number of activities of different companies. Everything happens in a “globalized environment”. This is more realistic (*dynamic*) view of globalization. By entering into mergers, acquisitions, and strategic alliances, companies increase the chances for the establishment of complex interconnections. In addition, chances of globalization of companies at any level in the supply chain depend on the degree of globalization of companies at other levels.

In order for companies to be competitive, their supply chain needs to be cost-efficient, responsive, flexible, and agile, and must enable customers to get the right products in the right quantity, at the right time and the right place. It is difficult to develop a supply chain that has all of these characteristics. Global market is a huge area, with different languages, culture, currency, regulations, taxes, infrastructure, business practices, and organizational forms. Countries’ levels of economic development differ as well. Therefore, managers’ attempts to optimize the supply chain can sometimes seem almost futile.

In a large number of developing countries, such as, for example, Western Balkan countries, practical application of the concept of supply chain management is in its infancy. Increasingly intense globalization of business, precarious supply networks, and varying and shortening product life cycle have forced some companies in these countries to intensify cooperation with partners in their supply chain.

Companies in the Republic of Serbia face numerous challenges in relation to the supply chain. The most important are: underdeveloped logistics infrastructure, lack of information and experts in the field of logistics, lack of modern transport and storage technology, use of outdated organizational models, complicated supply chain network, specific culture, unfamiliarity with the structure of logistics costs in companies, as well as their relatively high share in GDP (between 15 and 18 percent). Nevertheless, the concept of supply chain management is widely and successfully implemented by companies from different sectors. Among these challenges, trust, as part of the culture, plays a significant role in implementation of the concept of supply chain management. Trust is the basis for the exchange of information and development of cooperation between members of the supply chain in the Republic of Serbia. However, underdeveloped logistics infrastructure and lack of professionals in the field of logistics are major challenges for the development

of supply chains in the Republic of Serbia, as well as in most of the countries of the Western Balkans.

In order to successfully operate in the modern environment, companies need to become part of global supply chains. Control of global supply chains rests on constant commitment of managers to optimize their activities and processes. In order to achieve success, all companies within the global supply chain must continually improve: flow of raw materials, finished products, money, and information; control of logistics costs; and the level of satisfaction of shareholders and consumers. To achieve this goal, it is important to effectively manage the relationship between providers and users of logistics services. Generally, efficient logistics is a key factor in competitiveness of global supply chains. In the US, about 86 percentage of companies in the Domestic Fortune 500 list do business with providers of logistics services (<http://www.3plogistics.com/3pl-customers-report-identifies-service-trends-3pl-market-segment-sizes-and-growth-rates-2/>).

In today's business environment, there are more and more products with a short life cycle (Määttä, 2013, p. 3). Volume of international transport of goods, rate of product innovation, and instability of demand constantly grow. In such an environment, it is not enough to apply lean concepts, i.e. efficiency concepts (such as just-in-time and quick response concept) in logistics processes, but also agility concepts (quick response to the changing needs in both volume and variety terms) (Jain, et al., 2008, pp. 367-385). While lean supply chain management focuses on minimizing costs and losses of the company, agile supply chain management is focused on creating highly flexible supply chain, in which the flows of materials, products, money, and information can take place quickly and easily. Lean supply chain involves low waste, while agile supply chain is “sleek and agile as a gymnast” (Cornillie, and Macharis, 2006, pp. 15-26). Supply chain managers are now expected to skillfully combine lean and agile concepts of supply chain management. Unfortunately, relevant scientific works still do not provide a method for determining the optimal mix of these concepts in practice.

Each segment of the supply chain must be flexible enough to be able to quickly identify and exploit new environmental opportunities. Any potential opportunity must be measured on the basis of the matrix of *quantitative* and *qualitative* factors – from local taxes and regulatory costs, through labor availability and transport costs, to economic and political risks in the context of a particular national market. Principles of supply chain can be quite simple, but the execution of the supply chain strategy is, as a rule, complex. Strategy is often related to very complex supply chain processes, such as procurement of raw materials, production, and delivery of products in different geographic areas. Companies in developing countries focus on the creation and fast operation of the logistics network, while companies on developed markets are more focused on optimizing the existing logistics network.

Gaining insight into costs is imperative for companies operating on the international market. They have to know cost generators of the global supply chain within each function, and then adjust the overall supply chain strategy to achieve success on every market. Upon gaining access to all the costs of the global supply chain, companies can accurately assess and evaluate impacts of possible compensation (*trade-offs*).

2. Globalization as an opportunity to reduce costs in the supply chain

Globalization provides an opportunity for consumer electronics manufacturers to focus on the production of standardized, small, and expensive electronic components at a small number of locations, so that they can be transported relatively easily and at low cost. Such producers achieve economies of scale by manufacturing products that can be installed in a variety of products throughout the world and by consolidated shipment. For example, Foxconn Technology Group, the world's largest electronics manufacturer and the largest employer in China (<http://www.reuters.com/article/2010/07/22/us-china-labour-idUSTRE66L0A220100722>), gathers under its roof companies such as Apple, Cisco, Dell, Microsoft, Google, Nokia, and Toshiba, and is an excellent example of the use of economies of scale. Moreover, globalization affects the behavior of clothing manufacturers.

Commercial effects of global supply chains significantly depend on a reduced share of transportation costs in total costs. Transport costs, for example, can be reduced by the formation of supply hubs, especially when several components are procured from multiple locations on the global market. For example, many manufacturers in Asia have created hubs, to which consolidated shipments, rather than small consignments are transported.

A significant reduction in transport costs can be achieved by designing products that would allow fuller capacity utilization of transport equipment. Swedish company IKEA has significant experience in this regard. The world's largest seller of furniture (in 2013 it had 1,800 suppliers from 50 countries, 9,500 different products, 345 stores in 42 countries, 32 distribution centers in 16 countries, 1.5 million deliveries a year, and achieved sales of 35.5 \$ billion) has been known for more than 60 years (http://www.supplychain247.com/article/how_does_ikeas_inventory_management_supply_chain_strategy_work), among other things, for its production of flat-packed products of modular design, which can be quickly packed and loaded into transport vehicles, with increased level of use and reduced shipping costs (*Figure 1*). IKEA efficiently manages relationships with suppliers and manufacturers of materials. As a result, materials are procured at reasonable prices.



Figure 1 IKEA warehouse

In addition to encouraging competition between suppliers, so that they could offer the best materials at advantageous prices, IKEA builds long-term business relationships with them, and, thus, further reduces product prices.

In 2000, IKEA introduced a code of conduct, called *IKEA Way on Purchasing Home Furnishing Products (IWAY)*, which defines what suppliers can expect from it and what it requires of them. Today, IKEA applies several codes of conduct (*IWAYs*) relating to various aspects of its operations (http://www.ikea.com/ms/en_AU/about_ikea/our_responsibility/iway/).

IKEA is characterized by catalog sale of products (Harapiak, 2013, pp. 25-51) that are available to customers for a year at guaranteed product prices. IKEA designs unique products that generate low production costs and also meet stringent requirements in terms of function, distribution, quality, and environmental impact.

According to a study realized by journalists of London daily *The Times*, more than 50 percentage of IKEA products are made of ecological or recycled components. Also, IKEA strives to use a small amount of material in the production of final products, without lessening their quality and durability. Such a strategy allows IKEA to reduce labor costs relating to the acquisition of materials and final product transportation costs.

In the case of procurement of several components from different markets, companies can use hubs and thus significantly reduce transportation costs. It is known that some manufacturers in Asia have created hubs to replace expensive transportation of small individual shipments from each supplier by cheaper transport of consolidated shipments.

3. Strategies to reduce risk in global supply chains

If managers do not implement appropriate strategies for risk reduction, they can significantly reduce the possibility of creating an efficient supply chain. For example, the strategy of *increasing the number of suppliers* can influence the risk of interruptions in supply from any source. An excellent example is the interruption in the supply of *Nokia* and *Telefon AB LM Ericsson* by *Philips* factory in Albuquerque, New Mexico, USA, which occurred on 17 March 2000 due to the outbreak of fire (Sheffi, and Rice, 2005, pp. 41-48). *Nokia* and *Telefon AB LM Ericsson* reacted differently to this incident in the supply chain. *Nokia* found a solution quickly, and took advantage of several other factories in its supply chain. In contrast, *Telefon AB LM Ericsson*, another buyer of chips produced by New Mexico factory, pursued a policy of supply from one source. When a New Mexico factory stopped working because of the fire, *Ericsson* did not have a spare supplier of microchips, which is why it had problems in the production of mobile phones for a few months and reduced revenues by approximately 400 million dollars (Chopra, and Sodhi, 2004, pp. 53-62). Apart from *Ericsson*, many other companies learned a lot from this incident.

Strategy to reduce one risk can increase other risks. For example, *strategy of increasing inventory levels* reduces the risk of delay in supply, but increases the risk of obsolescence of goods. By implementation of strategies to increase the number of suppliers, the company reduces the risk of interruption of supply, but increases the total cost, because, in this case, each supplier finds it more difficult to count on the effects of economies of scale. Therefore, managers should develop *specific strategies for reducing costs while creating supply networks*. Such strategies allow *trade-off* between risk reduction and cost increase (*Table 1*).

Managers of global supply chains should combine strategies for reducing risks with financial strategies. For example, global supply chain strategy, focused on reducing costs, can direct production to only a few countries with lower costs. This creates a supply chain with inflexible capacities, which is vulnerable to the risk of supply interruption and the risk of fluctuations in the price of transport and exchange rates. The company that is a member of such a supply chain must reduce transport costs and costs of exchange rate differences, because it cannot cope with fluctuations in the price of transport and exchange rates. In contrast, the global supply chain with flexible capacities offers the possibility of moving production to locations that are most effective in certain macroeconomic conditions. This concept of supply chain reduces the need for *financial hedging*, i.e. financial transactions which one enters with the aim of limiting or reducing the risk of existing investment positions. Unlike previous ones, operational transactions for risk insurance (*operational hedging*) (http://ink.library.smu.edu.sg/lkcsb_research/3758), such as increase in flexibility, are much harder to implement. However, they have the advantage of being more reactive, i.e. include reconfiguring the supply chain in order to best accommodate it to a given environment.

Operational hedging is a holistic approach to risk management (<http://business.financialpost.com/executive/operational-hedging-curbs-exchange-rate-uncertainty>) that allows more flexibility when designing and changing supply chain. Managers should use operational hedging strategies together with financial hedging to prevent or mitigate major changes in the structure of costs caused by exchange rate changes, customer demand, and competition. Typical operational hedging strategies are: strategy to improve company's supply chain, strategy to win customers and achieve competitive advantage, and procurement strategy based on a unique business model and market environment of the company.

Table 1. Approaches to reducing risk and specific strategies to reduce costs while creating a network

<i>Approach to reducing risks</i>	<i>Specific strategies to reduce costs</i>
Increasing capacity	Focus on cheap, decentralized capacities for foreseeable demand. Build centralized capacities for unpredictable demand. Increase decentralization as costs of capacity fall.
Providing new suppliers	Favor larger number of suppliers in case of procurement of products in large quantities. Focus on a smaller number of suppliers in case of procurement of products in small quantities. Centralize procurement of products in small quantities from several flexible suppliers.
Increasing responsiveness	In the case raw materials, favor costs relative to responsiveness. In the case of short product life cycle, favor responsiveness in relation to costs.
Increasing inventories	Decentralize inventories of lower value whose demand is predictable. Centralize inventories of greater value, whose demand is less predictable.
Increasing flexibility	Favor costs compared to flexibility of products with high and predictable demand. Favor flexibility of products with low and unpredictable demand. Centralize flexibility to a small number of locations if it is expensive.
Aggregation of demand	Increase aggregation as unpredictability grows.
Increasing supply opportunities	Favor supply opportunity in relation to cost of products of high value and high risk. Favor costs in relation to supply opportunity of products of lower value.

Source: Chopra, and Sodhi, 2004, pp. 53-62.

Not all strategies to reduce risk are successful. For example, Honda relied on flexibility of its plants when demand for vehicles in 2008 started going in an undesirable direction. If it had not been for fluctuation in demand, Honda could not have relied on flexibility. Increased flexibility of its production owes a lot to *IBAS (Intelligent Body Assembly System)* (CIO, 1991, p. 15), developed by experts from Nissan in early 1990s. IBAS is based on the concepts of flexible production as well as software that allows one to specify distance between individual parts of the car body and the selection of tools for assembling 30 different types of cars (<http://www.allbusiness.com/professional-scientific/scientific-research-development/248282-1.html>). Owing to the implementation of *IBAS*, Nissan shortened body development and manufacturing time, while satisfying growing needs of customers. Despite numerous advantages, in early 1990s, IBAS brought Nissan almost to bankruptcy, because, during its introduction, the situation on the car market was relatively stable. Similarly, by using hedging strategy, the company Southwest Airlines managed to, from 1999 to 2008, save about 3.5 billion dollars on fuel (<http://www.msnbc.msn.com/id/26761843>). However, hedging strategy cost this company a lot at the end of 2008, due to a significant drop in the price of crude oil. The experience of Honda, Nissan, and Southwest Airlines refer to the obligation of managers to analyze in detail the long-term validity of strategies to reduce risk in supply chains before their implementation.

Conclusion

Globalization is one of the most complex phenomena that affect virtually all segments of the economy. This term indicates the growing economic interdependence of countries worldwide, which can be realized by: increasing volume and variety of international transactions of goods and services; freer international capital flows; and faster and wider distribution of technology. Globalization of business enables companies to increase the level of integration and coordination of their activities and resources, and to conquer the markets of different countries.

Globalization is a representative or a generator of various processes, actions, and trends within the supply chain. Measuring the impact of globalization on the functioning of processes and activities in the supply chain is a complex research problem.

The world has become a global village with related companies and their supply chains. In order to survive fierce competition, companies today need to direct operations beyond the borders of their home countries and to control their costs. Cost control generally means reduction in the number of unprofitable business units and focusing on core competencies (core business). Thus, offshoring parts of the value chain in countries with low costs and outsourcing parts of the value chain – especially those cataloged as secondary activities, such as logistics – are generally accepted ways of organizing business today.

Due to the global spread of digital technology, consumers will pay more for extra services, rather than require lowering their prices. There will be an increase in the complexity of the supply chain towards *upstream* segments. Therefore, supply chain managers will have to apply different strategies to increase their responsiveness.

Globalization significantly increases managers' responsibilities. Due to globalization, the spectrum of risks faced by supply chains is wider than ever. In order to mitigate them, companies must have contingency plans.

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Vladimir Nedić¹
The School of Applied Engineering Studies, Kragujevac

Dušan Cvetanović²
University of Niš, Faculty of Economics

Jovica Subotić
Secondary School of Economics, Kragujevac

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REVERSING THE LOSS OF NATURAL RESOURCES AND SUPPORT TO THEIR REVITALIZATION IN THE WESTERN BALKANS

Abstract

Using data from the World DataBank for the period 1990-2015, relating to Ensure environmental sustainability, and Target A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources within it, the paper presents comparative analysis of indicator values for the five countries of the Western Balkans (Albania, Bosnia and Herzegovina, Macedonia, Serbia, and Montenegro) and the EU28 average. The results show that the Western Balkan countries significantly lag behind the countries of the European Union in all five monitored indicators in the context of stopping the loss of natural resources and their revitalization.

Key words: sustainable development, millennium goals, natural resources

JEL classification: Q20, Q40, Q50

ЗАУСТАВЉАЊЕ ГУБИТАКА ПРИРОДНИХ РЕСУРСА И ПОДСТЦАЊЕ ЊИХОВЕ РЕВИТАЛИЗАЦИЈЕ У ЗЕМЉАМА ЗАПАДНОГ БАЛКАНА

Апстракт

Користећи податке из базе података Светске банке за период 1990-2015., који се односе на праћење Обезбеђење еколошке одрживости, у оквиру тога Таргет А: Интегрисање принципа одрживог развоја у националне политике, заустављање губитака природних ресурса и подстицање њихове ревитализације; у раду је презентована компаративна анализа вредности индикатора за пет земаља Западног Балкана (Албанија, БиХ, Македонија, Србија и Црна Гора) и просека ЕУ28. Резултати истраживања су показали да земље Западног Балкана изражено заостају по свих пет посматраних индикатора у оквиру

¹ vnedic@kg.ac.rs

² dusan.cvetanovic@gmail.com

зауштавања губитака природних ресурса и њихове ревитализације у односу на земље Европске уније.

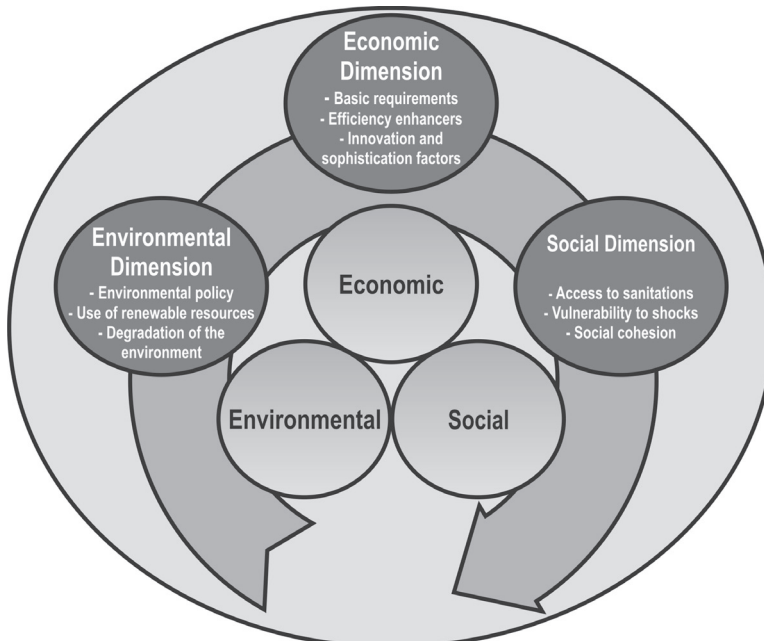
Кључне речи: одрживи развој, миленијумски циљеви, природни ресурси

Introduction

Sustainable development can be broadly defined as development that meets the needs of the present without compromising the ability of future generations (Elliott, 2012; Jovanović, Radukić & Petrović–Randelović, 2011; Daly, H2006). Sustainable development is detected as the most urgent global problem since 1972, when it was placed in the United Nations Environmental Programme (see Petsonk, 1989), and for nearly four decades ago remain important areas of research of many disciplines (sociology, economics, ecology, technology, biology, geography, law and political science, as well as many others) and areas of national government policies as well as a number of international initiatives and projects.

Understanding sustainable development gradually expands by interconnecting sociology, economy and ecology into a kind of “magic triangle” of development (*Figure. 1*) (Filipovic & Despotovic, 2014; Despotovic et al., 2015).

Figure 1: Three layers of sustainable development



Source: Autors

As stated in Pokrajac (2013), “this triangle for every civilized man should be a minimum not only an obligation, but a historic opportunity and space to prove himself as a humanist and a true globalists, to whom is truly important the entire world, not only his own,

local part. Therefore, if we want to look to the future we must stand firmly on that tripod. If it fails just one leg, the picture of the future will be dangerously defective, distorted or incomplete, if possible at all.”

Although the phenomenon of sustainability is considered by some authors in different ways, they have common or similar fundamental human and ethical principles: environmental security, social justice, human solidarity and compassion, tolerance, dignity and freedom of human beings, the balance of individual and social interests, ethnical, cultural and religious pluralism, free development of human creative potential. It is about the maturing of collective consciousness about the necessity of social change and transformation of that consciousness into the mass movement for the formation of new more righteous and more humane society (Mesarić, 2006).

The quality of the paradigm of sustainable development comes not only from the fact that it combines the most important economic, social and environmental criteria, but also from the circumstances that the concept creates a particular “methodological synergy”. This confirms a) anthropocentric approach, which puts in the foreground people and their responsibility for sustainable development; b) long-term, understood as multitime synthesis c) spatial coverage, ranging from local to global (Pokrajac, 2002, 145).

The concept of sustainability is widely accepted nowadays. The reasons for this lie in possible answers to the question why economic activity must be sustainable (Kuik & Verbruggen, 2012; Griggs, et al., 2013).

In the first place, there are strong moral reasons why modern generations leave a legacy of much less development opportunities to their descendants, compared to what they have now. This means that the planet Earth, with its resources, must not be degraded by humans. This reasoning is based on Rawls’s theory of justice, which highlights the fundamental principle of moral justice, contained in the equal right of every individual to the widest fundamental freedoms, which do not contradict the freedom of others (Rawls, 1971; Pogge & Kosch, 2007). Thus, the right of present generation to use resources and the environment must not compromise the same rights of generations to come.

The second group of reasons regarding sustainable development is of environmental nature (Krstic, 2014; Cvetanovic et al., 2014). Specifically, if the nature is a value in itself, i.e. if the preservation of biodiversity and stocks of natural resources is justified by the view that man is only a part of nature, then man has no right to irretrievably change it (Cavender-Bares, et al., 2013). Then not every form of economic activity that affects the diversity of wildlife and a wealth of resources can be acceptable. In fact, this group of reasons, too, can be reduced to moral reasons, noting that here the focus is not on attitude of the present towards future generations, but the attitude towards other living beings, i.e. towards nature as a whole (Karpiak & Baril, 2008).

The third possible reason to justify the concept of sustainability can be the attitude that disregard for the concept of sustainability leads to inefficient economic development (Ambec, et al., 2013).

A special place in the operationalization of sustainability belongs to metrics defined at the Millennium Summit, held in New York in 2000 (Sachs & McArthur, 2005). The importance of the Millennium Declaration (Assembly, 2000) is reflected in the definition of global norms that should be the basis of international relations in the 21st century. The shortest possible, these are the norms that have been translated into the following eight goals: 1. Eradicate extreme poverty and hunger; 2. Achieve universal primary education; 3. Promote

gender equality and empower women; 4. Reduce child mortality; 5. Improve maternal health; 6. Combat HIV/AIDS, malaria, and other diseases; 7. Ensure environmental sustainability; 8. Develop a global partnership for development (See *Figure 2*).

Figure 2: Millennium Development Goals



Source: Authors according Millennium Development Goals(n.d)

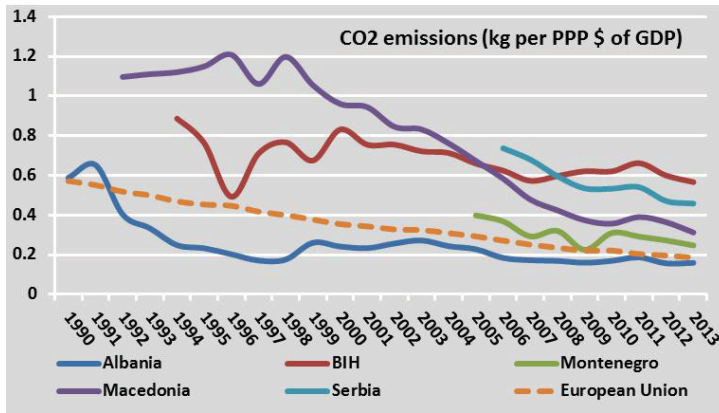
In this paper, the focus is on Goal 7: Ensure environmental sustainability. The realization of this goal is monitored by five groups of indicators (A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources; B: Reduce biodiversity loss; C: Access to safe drinking water and basic sanitation and D: Improvement in the lives of slum dwellers). We monitor the values of indicators within 7A (CO2 emissions (kg per PPP \$ of GDP); CO2 emissions (metric tons per capita); Energy use (kg of oil equivalent per \$1,000 GDP (constant 2011 PPP); GDP per unit of energy use (constant 2011 PPP \$ per kg of oil equivalent; and Forest area (% of land area). The text that follows presents a comparative view of their values individually for the five countries of the Western Balkans (Albania, Bosnia and Herzegovina, Macedonia, Serbia, and Montenegro) and the EU28 average.

Integration of the principles of sustainable development into country policies and programmes and reversing the loss of environmental resources of the Western Balkans and the EU in the period 1990-2013

One of the main problems in the world in recent decades is global warming. Proposals for its solution are very different. One of the most frequently mentioned solutions is to reduce CO2 emission (Manne & Richels, 1991). CO2 emission is quantified in different ways (kg per PPP \$ of GDP; metric tons per capita).

Figure 3 shows the trend of CO2 emissions kg per PPP \$ of GDP in five countries of the Western Balkans and the European Union in the period 1990-2013.

Figure 3: CO2 emissions (kg per PPP \$ of GDP)

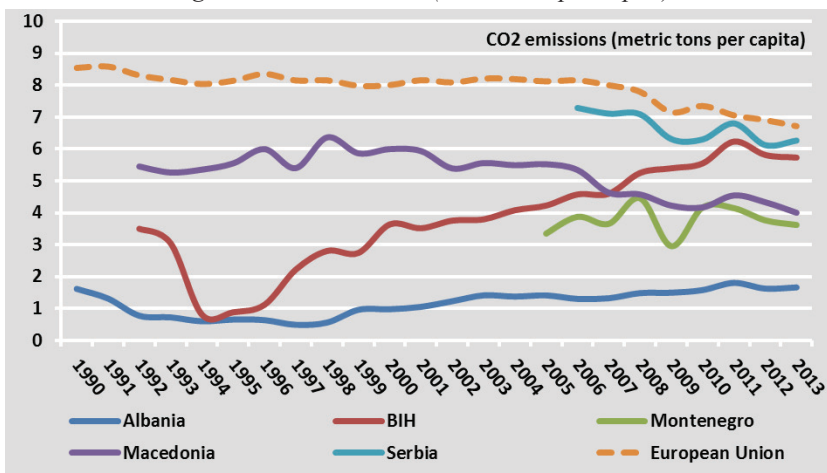


Source: Millennium Development Goals| World DataBank. (n.d)

In the reporting period, since 1990, the intensity of CO2 emissions was much higher in the surveyed countries of the Western Balkans than the EU average. It was not until 2003 that the Western Balkan countries started showing declining trend, but a large gap in relation to the EU average is still evident. In addition, throughout the reporting period, EU countries were characterized by steady downward trend of CO2 emissions (kg per PPP \$ of GDP), while in all the countries of the Western Balkans there was a tendency of pronounced oscillations of CO2 emissions by years in the observed time interval.

Figure 4 shows the trend of CO2 emissions (metric tons per capita) in five countries of the Western Balkans and the European Union in the period 1990-2013.

Figure 4: CO2 emissions (metric tons per capita)



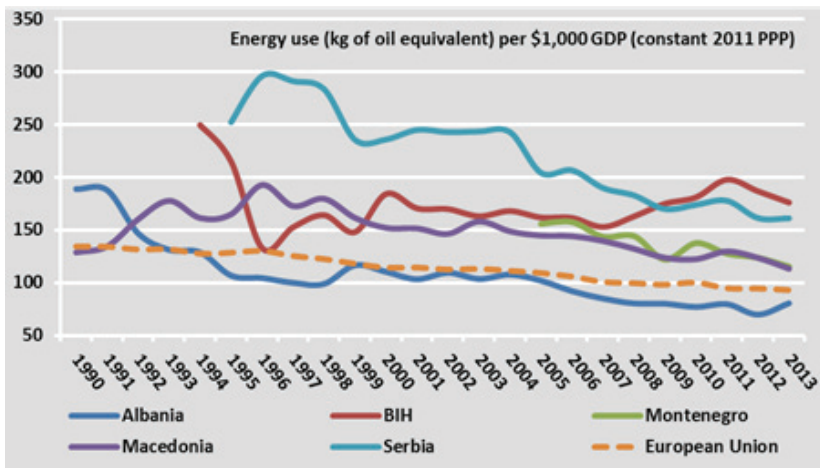
Source: Millennium Development Goals| World DataBank. (n.d)

Diagram in *Figure 4* shows that the EU countries, observed by CO₂ emissions (metric tons per capita), are still bigger polluters than all other observed Western Balkan countries, although showing a slight downward trend. In addition, still high levels of pollution in the EU may be partly justified by high efficiency, i.e. lowest CO₂ emissions (kg per PPP \$ of GDP) (compared to the observed Western Balkan countries) (*Figure 3*).

On the other hand, countries of the Western Balkans do not indicate a trend towards improvement, based on the parameter of CO₂ emissions (metric tons per capita), except for Serbia, which is, after the EU, the biggest polluter in this parameter among the countries observed. The best ranked country is Albania, although it increased this emission from 0.5 in 1997 to 1.7 tons per capita in 2013.

Over 80 percent of the world's energy comes from fossil fuel resources. It is anticipated that the global demand will continue to grow by 2030, which imposes the imperative of efficient use of energy. One of the indicators of the efficiency of energy use is certainly an indicator Energy use (kg of oil equivalent) per \$1,000 of GDP in constant prices (*Figure 5*).

Figure 5: Energy use (kg of oil equivalent) per \$1,000 GDP (constant 2011 PPP)



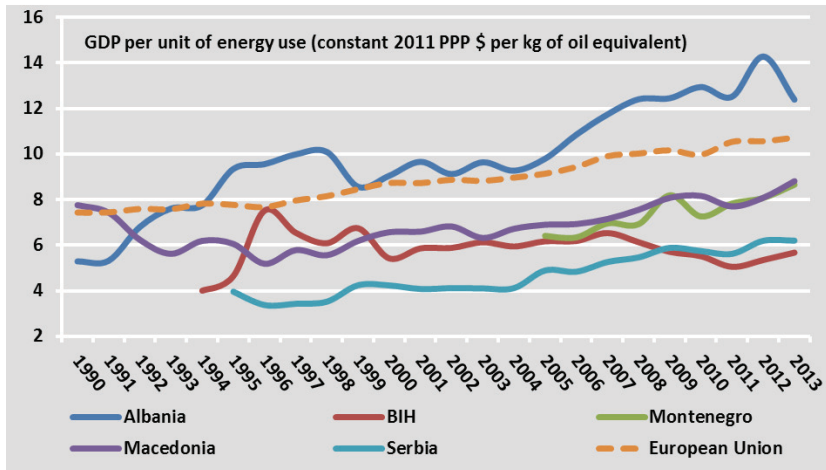
Source: Millennium Development Goals | World DataBank. (n.d)

Parameter of primary energy consumption per unit of GDP is, as expected, almost the most favorable in the EU (as the average value of the members), with the most stable trend of improvement. The only country in the Western Balkans with approximate and better results is Albania (Ralchev, 2012).

Serbia shows the worst efficient use of primary energy, but trend of improvement is still evident. In 2013, primary energy consumption per unit of gross domestic product in the Republic of Serbia amounted to 0.16 tons/1000 \$ of GDP (constant 2011 PPP), according to the World Bank data (Millennium Development Goals | World DataBank. (n.d.)), which shows a significant decline relative to the value of 0.3 tons/1000 \$ of GDP in 1996. This still represents a very high value, although countries like Turkmenistan (0.37), Ukraine (0.31), Uzbekistan (0.28), South Africa (0.21), Russian Federation (0.2), and Kazakhstan (0.2) had higher values of this parameter in 2013. On the other hand, in developed countries (OECD), the value of this parameter in 2014 was about 0.11, while in the EU it was only 0.09. This

means that Serbia consumed 2 times more energy per unit of gross domestic product than the EU, suggesting a considerable need for energy rationalization.

Figure 6: GDP per unit of energy use (constant 2011 PPP \$ per kg of oil equivalent)

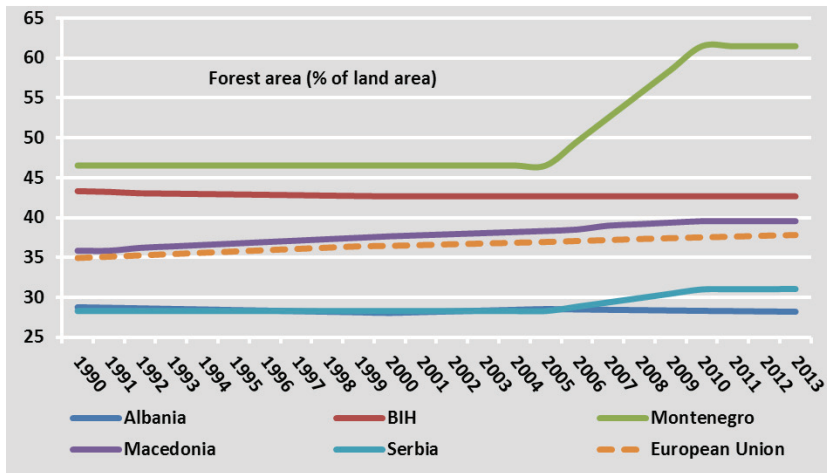


Source: Millennium Development Goals| World DataBank. (n.d)

It can be said that energy efficiency in the Republic of Serbia is one of the lowest (Figure 6): With extremely low energy efficiency in all sectors of energy consumption (industry, transport, agriculture, public and utility services, and households), high use of electricity for heating purposes is also characteristic. Increasing energy efficiency is necessary because of the growing problems in the global energy sector, which are directly reflected on the domestic energy situation: rising prices of energy generating products (large fluctuations in prices of energy generating products on the world market since the crisis period of 2008) and the need to secure long-term energy sources and reduce dependence on imports, as well as to protect and preserve the environment. In the end, it is also one of the conditions that must be achieved in the process of harmonization and accession of Serbia to the European Union.

Deforestation causes significant loss of biodiversity, while values associated with biodiversity are significant externalities, which are rarely reflected on market prices (Figure 7).

Figure 7: Forest area (% of land area)



Source: Millennium Development Goals | World DataBank. (n.d)

Forests, as the most valuable part of the ecosystem, capable of significantly improving general living conditions, occupy a very important place in the global concept of protection and improvement of the environment, which is why they require special treatment through an appropriate system of protection, use, and management of all functions of forests in the context of sustainable development. Forested areas cover 31.1% of the total area of the Republic of Serbia, which shows a positive trend compared to 28.3% in 1990 and a move from the last to the second to last place in the group of observed countries (the increase was achieved in the period from 2005 to 2010). Relatively speaking, Montenegro had the best results based on this parameter, while the EU average in 2013 was about 38%.

Conclusion

A special place in the operationalization of the sustainability category belongs to metrics defined at the Millennium Summit, held in New York in 2000. The importance of the Millennium Declaration is reflected in the definition of global norms that should be the basis of international relations in the 21st century.

Data observed implies that the Western Balkan countries significantly lag behind the EU average in all five indicators of reversing losses of natural resources and their revitalization (CO₂ emissions (kg per PPP \$ of GDP); CO₂ emissions (metric tons per capita); Energy use (kg of oil equivalent) per \$1,000 GDP (constant 2011 PPP); GDP per unit of energy use (constant 2011 PPP \$ per kg of oil equivalent); and Forest area (% of land area).

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Evica Delova Jolevska¹
American College Skopje, Macedonia

Ilija Andovski²
National Bank of The Republic of Macedonia

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FINANCIAL INCLUSION: THE CASE OF REPUBLIC OF MACEDONIA

Abstract

The core goal of this paper is to assess the level of financial inclusion in Republic of Macedonia. The level of financial inclusion in a country is important because it can facilitate the reduction of poverty in a country. Also the higher level of financial inclusion can have positive impact on macroeconomic development by facilitating the economic growth. The main mechanisms are lower transactional costs and better distribution of capital. Also the level of financial inclusion is important for effective execution of other social policies. The level of financial inclusion in Macedonia is on satisfactory level which was driven by the legislation also. Almost all the population have access to bank account which is good base for further measures. Still, the use of the account only to receive wage and withdraw from ATM indicates for higher need for financial education. Also, the new payment methods like credit cards or electronic payments are on very low level which further emphasizes the need for education in which the banks must have more active role. The borrowings in major part are from relatives and friends and from retail stores. In all categories as less financially included are older people, people with smaller income and people who are less educated. This gives clear path for the policy makers where to focus its activities of enhancement of the level of financial education.

Key words: Financial inclusion, Financial access, Macedonia, comparative analysis

JEL classification: G21; G28

ФИНАНСИЈСКА ИНКЛУЗИЈА: СЛУЧАЈ РЕПУБЛИКЕ МАКЕДОНИЈЕ

Апстракт

Суштински циљ овог рада је да се процени ниво финансијског укључивање у Републици Македонији. Ниво финансијске инклузије у земљи је важан, јер може да помогне смањењу сиромаштва у земљи. Такође, виши ниво финансијске инклузије може да има позитиван утицај на макроекономски развој путем олакшавања економског раста. Главни механизми су нижи трансакциони трошкови и бољи

¹ jolevski2001@yahoo.com

² iandovski@yahoo.com

распоред капитала. Такође, ниво финансијске инклузије је важан за ефикасно извршавање других социјалних политика. Ниво финансијске инклузије у Македонији је на задовољавајућем нивоу према важећим законима. Такође, сво становништво има приступ банковном рачуну. То је добра основа за даље мере. Ипак, употреба рачуна само за примање плате и подизање новца из банкомата указује на већу потребу финансијске едукације. Такође, нови методи плаћања као што су кредитне картице или електронска плаћања су на веома ниском нивоу, што додатно наглашава потребу за образовањем у којој банке морају да имају активнију улогу. Кредити се у највећем делу узимају од рођака и пријатеља као и из малопродајних објеката. У свим категоријама мање су финансијски укључене старије особе, људи са мањим примањима и људи који су мање образовани. Ово даје јасан пут креаторима политике. Односно, на шта треба да фокусирају своје активности да би унапредили ниво финансијског образовања.

Кључне речи: *Финансијска инклузија, финансијски приступ, Македонија, компаративна анализа.*

Introduction

Financial inclusion is one of the most used words lately in the academic and financial world. In simple words the financial inclusion has one main goal, to provide access to financial services to parts of the population that are still unbanked. This is part of the population with lower level of income, that lives in rural areas, that is part of the grey economy ect. For the World Bank financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way. Why is the financial inclusion important issue? Because the estimation is that 2 billion adults worldwide don't have a basic account (World Bank, 2016). Also, More than 200 million formal and informal micro, small and medium-sized enterprises (MSMEs) in emerging economies lack adequate financing to thrive and grow. The approach of The World Bank for addressing this issues focuses on 9 intertwined areas (World Bank, 2016):

- National financial inclusion strategies,
- Modernize retail payment systems and government payments,
- Reform national payments systems (NPS), including remittance markets
- Diversify financial services for individuals,
- Leverage technology for financial inclusion,
- Strengthen competition and expand access points,
- Financial consumer protection,
- Financial capability and
- Financial inclusion data.

The main reason for enhancement of the level of financial inclusion is to reduce poverty. It is seen by policymakers as a tool for improving livelihoods, improve poverty and advance economic development. Aslo the policymakers argue that the increased level of financial inclusion can have positive impact on economic growth, financial stability and reducing the

grey economy. Positive effects include (Morgan and Pontines, 2014): diversification of bank assets, thereby reducing their riskiness; increased stability of their deposit base, reducing liquidity risks; and improved transmission of monetary policy. Negative effects include the erosion of credit standards (e.g., sub-prime), bank reputational risk, and inadequate regulation of MFIs. According to Morgan and Pontines there are positive effects of greater financial inclusion on financial stability, i.e., that the two are complementary rather than there being a trade-off between them. Studies show that small businesses benefit from access to credit, while the impact on the borrower's household's broader welfare might be more limited (Cull, Ehrbeck and Holle; 2014). Savings help households manage cash flow spikes, smooth consumption, as well as build working capital. Access to formal savings options can boost household welfare. Insurance can help poor households mitigate risk and manage shocks. New types of payment services can reduce transaction costs and seem to improve households' ability to manage shocks by sharing risks. Research also suggests that financial access improves local economic activity.

At the macroeconomic level, the empirical evidence shows that financial inclusion is positively correlated with growth and employment (Cull, Ehrbeck and Holle; 2014). The researchers generally believe in underlying causal impact. The main mechanisms they cite for doing so are generally lower transaction costs and better distribution of capital and risk across the economy. Evidence of a more preliminary nature suggests that broader access to bank deposits can also have a positive effect on financial stability that benefits the poor indirectly. In addition to the direct economic benefits, two recent developments suggest benefits for other government and private-sector efforts that might arise from inclusive low-cost, financial systems that reach a larger number of citizens. First, financial inclusion can improve the effectiveness and efficient execution of government payment of social safety net transfers (government-to-person payments), which play an important role in the welfare of many poor people. Second, financial innovation can significantly lower transaction costs and increase reach, which is enabling new private-sector business models that help address other development priorities.

Still the last research from the World Bank shows that country-specific characteristics play a central role in determining the impacts, interactions, and trade-offs between macroeconomic variables and policies. Thus, understanding the specific constraints generating lack of financial inclusion in an economy is critical for tailoring policy recommendations. Moreover, the model simulations indicate that different dimensions of financial inclusion have a differential impact on GDP and inequality and that there are trade-offs.

Measure of the level of financial inclusion

When building an index for financial inclusion in fact in the index should be included access indicators, usage indicators and quality measures (WB, 2015). The access indicators reflect the depth of outreach of financial services, such as the penetration of bank branches or point of sale (POS) devices in rural areas, or demand-side barriers that customers face to access financial institutions, such as cost or information. The usage indicators measure how clients use financial services, such as the regularity and duration of the financial product/service over time (e.g. average savings balances, number of transactions per account, number of electronic payments made). The quality indicators are important because they describe

whether financial products and services match clients' needs, the range of options available to customers, and clients' awareness and understanding of financial products. Most used global measures for financial inclusion are Global Findex and indicators on GPFi.

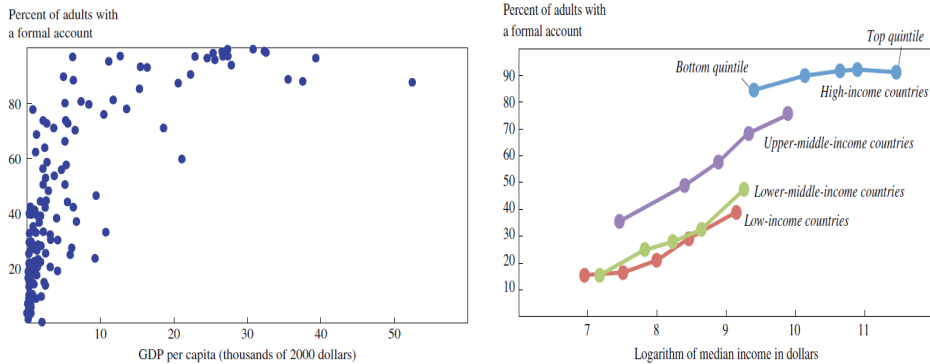
The Global Financial Inclusion (“Global Findex”) database provides such indicators, measuring how adults in 148 countries around the world manage their day-to-day finances and plan for the future. The indicators are constructed using survey data from interviews with more than 150,000 nationally representative and randomly selected adults over the 2011 calendar year. The Global Findex indicators measure the use of financial services, which is distinct from access to financial services. Access most often refers to the supply of services, whereas use is determined by demand as well as supply factors (World Bank 2008a). The Global Findex data can shed light on the levels and patterns of use of different financial services both globally and among different groups, such as poor people, youth, and women. But one cannot assume that all those who do not use formal financial services are somehow constrained from participating in the formal financial sector—access and use are not the same thing.

The G20 and Global partnership for financial inclusion indicators include banked adults, adults with credit, banked enterprises, enterprises with outstanding loan and point of services. This index is similar to Findex but is more aggregative and uses same of the data that are used in Findex but also aggregate data from IMF and World Bank surveys. Same as the Findex index this index has the same main weakness, and measure the use of financial services but not the demand for financial services. Also, global indexes help to compare the level of financial inclusion in different country and time but better approach for single country is unique index that will reflects the characteristics of the country and will give better picture for the level of financial inclusion in the time line.

Survey that offers the most comprehensive global supply-side data on financial inclusion is the IMF Financial Access Survey (FAS). The FAS is a global survey that provides geographic and demographic data, offering a strong quantitative underpinning to research on the link between financial inclusion and economic growth. Because it has supply side data it overcomes the biggest weakness of Findex regarding the difference between access and usage of financial services.

Generally speaking there is empirical relationship which can be demonstrated between the economic development of a country and the level of financial inclusion. More developed countries have higher level of financial inclusion and vice versa. These findings suggest that financial depth and financial inclusion are related but ultimately distinct dimensions of financial development, and that financial systems can become deep without delivering access for all (Kunt, Klapper; 2013).

Table 1 - Account penetration and GDP per capita and Formal Account Penetration, by Country Income Group



Source: Demirguc-Kunt Asli and Klapper Leora.(2013). *Measuring Financial Inclusion: Explaining Variation Across and Within Countries*

Globally, about 50 percent of adults have one or more bank accounts, and a nearly equal share are unbanked. In 2011, adults who were banked included the 9 percent of adults who received loans and the 22 percent of adults who saved through financial institutions (World Bank, 2015). Newly available user-side data show striking disparities in the use of financial services by individuals in developed and developing economies. For instance, the share of adults with a bank account in developed economies is more than twice the corresponding share in developing ones. The disparities are even larger if we examine the actual use of accounts. Worldwide, 44 percent of adults regularly use a bank account. However, if we focus on the bottom 40 percent of income earners in developing countries, we find that only 23 percent regularly use an account, which is about half the participation rate among the rest of the populations of these countries (the corresponding participation rates in developed economies are 81 percent and 88 percent, respectively) (Kunt, Klapper; 2013).

Level of financial inclusion in Republic of Macedonia

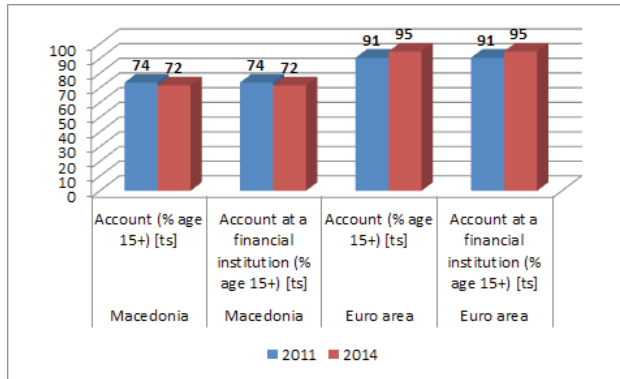
The basic idea that stands beside this paper is to evaluate the level of financial inclusion in R. Macedonia through analysis of indicators in some basic categories like number of accounts, borrowed funds and payment services.

Share of population with accounts

The share of population that has transactional account is a basic indicator for the share of “banked” population. Other important question is the frequency of use on the account. As can be seen in table 2, the share of population with transactional account in Macedonia is on satisfactory level and above 72% of the population has transactional account. One of the factors that contribute for the satisfactory level is the legislation also. According to

Macedonian laws in order to receive social transfer or subsidy for a government bodies you must have transactional account. Still there is discrepancy in the share of population with accounts compared to Euro area.

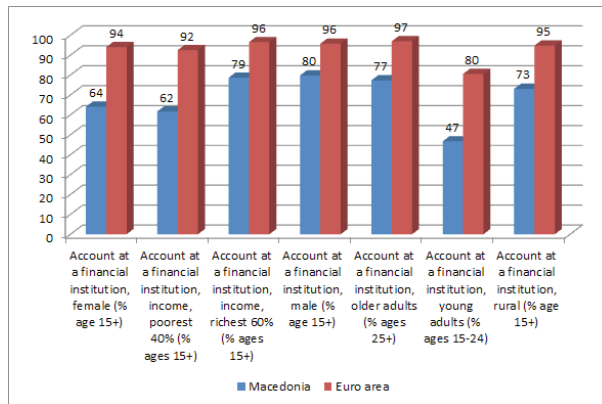
Table 2 – Share of population with account



Source: World Bank Global Financial Inclusion Database (2014).

The data confirm the conclusions that apply in global terms regarding the share of population with accounts by gender, age and income.

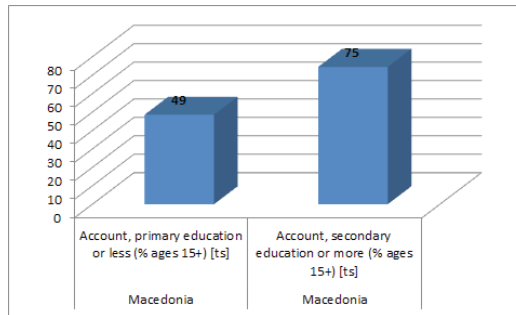
Table 3 – Share of population with accounts by gender, income, age and area in Macedonia and Euro area



Source: World Bank Global Financial Inclusion Database (2014).

The shares of female population with accounts are by 16 pp less than the male population. Also there is significant difference in the financial inclusion by income. Almost 80% of the richest 60% of the population have accounts and this percentage is only 62% at the poorest 40%. Compared with Euro area the greatest difference is at the young population. Almost 80% of the young population in Euro area has account and this share in Macedonia is only 47%. In some scale this is connected with the high level of unemployment at the youngest population. Regarding the level of education, the global trend is present in Macedonia also and more educated population is more likely to have account.

Table 4-Share of population with accounts by gender and education



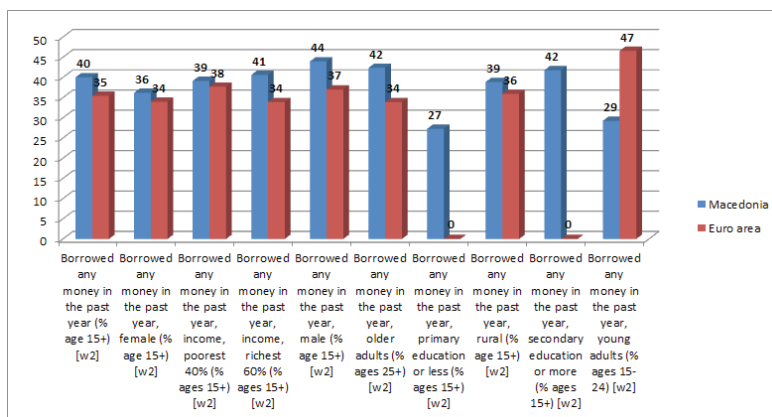
Source: World Bank Global Financial Inclusion Database (2014).

Borrowed funds

Having account is only one segment of financial inclusion and is not the best indicator for the effectivity of inclusion. Put in simple words you can have account but for whatever reason you are not using it then you are not part of the financial system. The share of population that effectively uses the financial system can show more clearly what the level of financial inclusion is. In that means the share of population that have deposits or loans from financial inclusion or even more that uses services from insurance companies is better indicator for the level of financial inclusion.

There is almost no difference in the percentage of population that borrowed any money in the Euro area and Macedonia. Also the gender structure doesn't show any significant differences. Significant differences can be point only at the young population. The young population in Macedonia doesn't have access or need to borrow money compared to the Euro area. In order to make full analysis for the inclusion what is more important is from whom and for what purposes the money is borrowed.

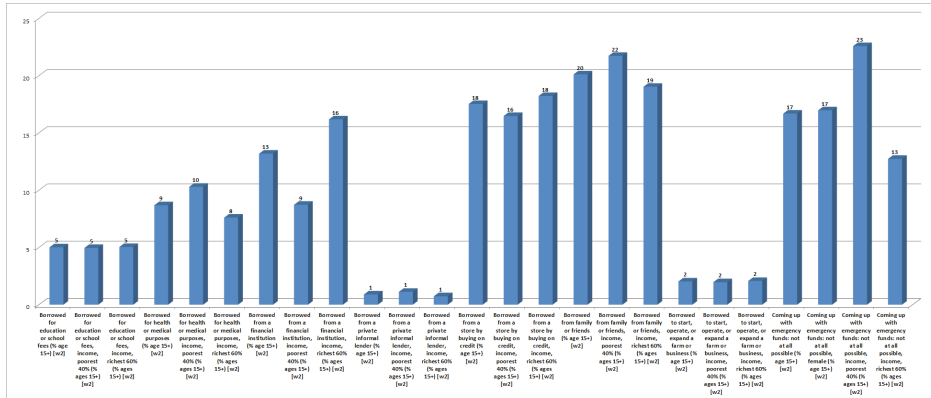
Table 5 – Share of population that borrowed money by different categories in Macedonia and Euro area



Source: World Bank Global Financial Inclusion Database (2014).

The primary difference between Macedonia and the Euro area is the source of the borrowed funds. In Macedonia dominate friends and family and in the Euro area more funds are borrowed from financial institutions.

Table 6 - Share of population that borrowed money by different categories in Macedonia



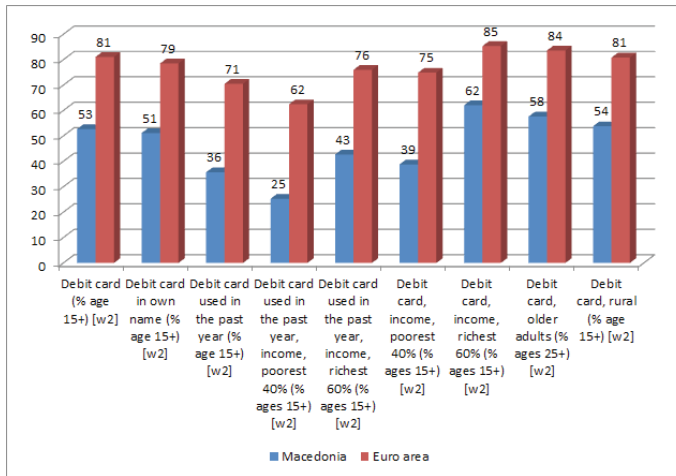
Source: World Bank Global Financial Inclusion Database (2014).

Although the difference in percentage from the population that borrows fund from financial institution in Euro area and Macedonia is only 3 pp, still at the poorest 40% that difference is 5%. This can indicate for reduced access of the poorest population in Macedonia in the financial system. Having in mind that banks dominate Macedonian banking system, they are very reluctant in granting loans to the poorest population. That can be seen from their granting rules where minimum income is prescribed. Almost 20% of the population in Macedonia has borrowing from a store which is 7 pp higher then the Euro Area. In this category there is no difference regarding the income level. Most used source of borrowings in Macedonia is friends and family. Especially this source is more characteristic for the population with lower income level. Another important aspect when we analyze the financial inclusion and the borrowed funds is the purpose of the loans. The greatest difference, almost double is in the share of population that borrowed funds for medical purposes. In Macedonia around 10% of the population above 15 years has borrowed funds for medical purposes and in the Euro Area this share is around 4%. The poorest part of the population tends more to borrow for medical purposes. The percentage of population that needs to borrow funds for education is almost the same in the Euro Area and Macedonia. Also almost the same is the share of population that doesn't have emergency fund or it is not possible to come up with emergency fund and that rate is 18%.

Payments

In order to further assess the level of financial inclusion, aspects that must be seen are the frequency and needs for use of accounts and also other modern means of payment like credit cards, electronic banking or mobile phones. The difference in the usage of debit and credit cards shows more accurate picture about the level of financial inclusion. Although there are some historical reasons for the greater usage of cash in Macedonia that are connected with the grey economy still the difference is obvious.

Table 7 –Share of population with debit cards in Macedonia and Euro area

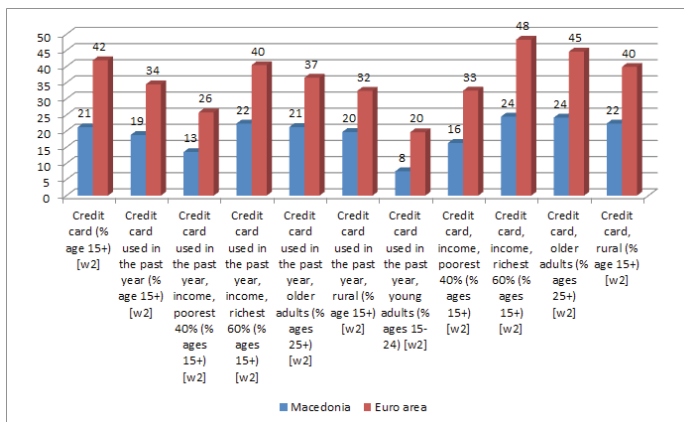


Source: World Bank Global Financial Inclusion Database (2014).

There is 30 pp difference in the share of population that has debit card in Euro Area and Macedonia. This difference is even greater when we analyze the usage. Only 36% of the population in Macedonia has used debit card in the past year and this percentage is only 25% at the poorest 40%. Main mode of withdrawal in Macedonia for 63% of the population is the ATM. So although there is easy access for debit cards still their usage is not on a satisfactory level. Of course this can be achieved by better financial education in which a significant part can have the banking system. Also in order to increase the usage of cards it is important the network of POS terminals.

The situation is similar regarding the usage of credit cards. The difference between Euro Area and Macedonia is almost double in all categories. It can be easily concluded that the main difference can be made by the level of income.

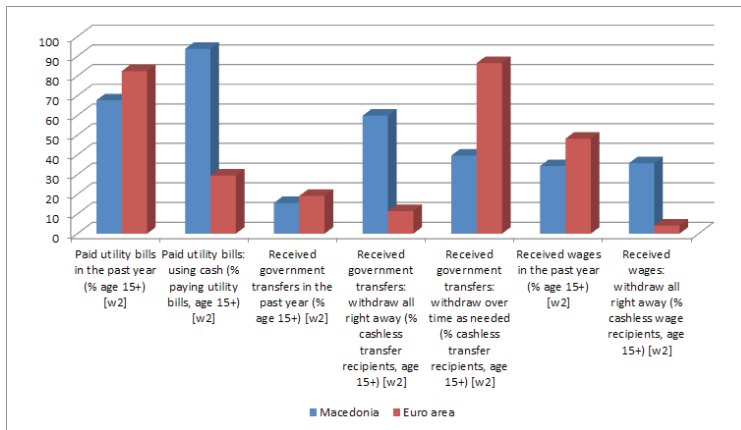
Table 8 - Share of population with credit cards in Macedonia and Euro area



Source: World Bank Global Financial Inclusion Database (2014).

The above mentioned conclusion can be further confirmed with deeper analazy of data. Almost 90% of the population pays its bills in cash and that percentige in the Euro area is above 30%. Also the percentiges of population that withdraw at once the whole government transfer or wage are much higher then on the same categories in Euro area. There are two main reasons for this kind of behavior, one of them are the habits and the other reason maybe is in less developed POS network.

Table 9 – Share of population in Macedonia and Euro area by ways of payment



Source: World Bank Global Financial Inclusion Database (2014).

Conclusion

Financial inclusion is one of the most used words lately in the academic and financial world. In simple words the financial inclusion has one main goal, to provide access to financial services to parts of the population that are still unbanked. This is part of the population with lower level of income, that lives in rural areas, that is part of the grey economy ect. Why is the financial inclusion important issue? Because the estimation is that 2 billion adults worldwide don't have a basic account (World Bank, 2016). Also, More than 200 million formal and informal micro, small and medium-sized enterprises (MSMEs) in emerging economies lack adequate financing to thrive and grow. The main reason for enhancment of the level of financial inclusion is to reduce poverty. It is seen by policymakers as a tool for improving livelihoods, improve poverty and advance economic development. Aslo the policymakers argue that the increased level of financial inclusion can have positive impact on economic growth, financial stability and reducing the grey economy. Positive effects include (Morgan and Pontines, 2014): diversification of bank assets, thereby reducing their riskiness; increased stability of their deposit base, reducing liquidity risks; and improved transmission of monetary policy.

Generally speaking there is empirical relationship which can be demonstrated between the economic development of a country and the level of financial inclusion. More developed countries have higher level of financial inclusion and vice versa. The last Findex study (World Bank, 2015) shows that 94 percent of adults in OECD reported having an account in 2014.

In developing economies only 54 percent did. There are also enormous disparities among developing regions, where account penetration ranges from 14 percent in the Middle East to 69 percent in East Asia and the Pacific.

The number of “banked population” in Macedonia measured through share of population with account is on satisfactory level and is above 70%. There is still discrepancy with the same indicator in the Euro area. Having in mind the low costs for opening account in Macedonia in order to further improve the use of accounts the main tool should be financial education. Especially financial education should be focused on female population in rural areas and the young population between 15 and 27 years. In some scale the low level of young population with account is connected with the high level of unemployment at the youngest population and also with the grey economy.

Although the difference in percentage from the population that borrows fund from financial institution in Euro area and Macedonia is only 3 pp, still at the poorest 40% that difference is 5%. This can indicate for reduced access of the poorest population in Macedonia in the financial system. Having in mind that banks dominate Macedonian banking system, they are very reluctant in granting loans to the poorest population. That can be seen from their granting rules where minimum income is prescribed. Another important aspect when we analyze the financial inclusion and the borrowed funds is the purpose of the loans. The greatest difference, almost double is in the share of population that borrowed funds for medical purposes. In Macedonia around 10% of the population above 15 years has borrowed funds for medical purposes and in the Euro Area this share is around 4%. The poorest part of the population tends more to borrow for medical purposes. The percentage of population that needs to borrow funds for education is almost the same in the Euro Area and Macedonia. Also almost the same is the share of population that doesn't have emergency fund or it is not possible to come up with emergency fund and that rate is 18%.

Regarding the payment methods, Macedonia is still cash society. There is 30 pp difference in the share of population that has debit card in Euro Area and Macedonia. This difference is even greater when we analyze the usage. Only 36% of the population in Macedonia has used debit card in the past year and this percentage is only 25% at the poorest 40%. Main mode of withdrawal in Macedonia for 63% of the population is the ATM. So although there is easy access for debit cards still there usage is not on satisfactory level. Of course this can be achieved by better financial education in which significant part can have the banking system. Also in order to increase the usage of cards is important the network of POS terminals. Almost 90% of the population pays its bills in cash and that percentage in the Euro area is above 30%. Also the percentages of population that withdraw at once the whole government transfer or wage are much higher than on the same categories in Euro area. There are two main reasons for this kind of behavior, one of them are the habits and the other reason maybe is in less developed POS network.

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Sasa Milojevic
Nebojsa Pavlovic¹
University Kragujevac
Faculty of Hotel Management and Tourism

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ENTREPRENEURIAL SPIRIT OF RURAL TOURISM OF THE POMORAVLJE DISTRICT, CENTRAL SERBIA

Abstract

When it comes to the development of small and medium-sized enterprises in Serbia, special attention is given to the growth of small, family ones, mostly those which are involved in the food industry, which is a foundation for the development of rural areas. The plans of reviving Serbian village are a recurring topic. The reasons for this revival are the favorable geographic position, rich natural treasures, interesting tradition, and history. One must pay attention to the fact that 85% of the territory in Serbia has rural features and that 50% of citizens inhabits those areas. Through surveys, this paper explores how entrepreneurs manage their businesses in the countryside, especially in the field of tourism in the Pomoravlje District. 50 entrepreneurs, chosen by random sampling, were interviewed, and attention is given to hospitality companies, recreation centers or wineries which deal with grape processing and winemaking. What these entrepreneurs have in common is the fact that they run family enterprises, and that high tax rates and poorly equipped infrastructure in local communities are the basic obstacles for further development and growth of their enterprises.

Keywords: entrepreneurship, rural area, the Pomoravlje District, rural tourism, family enterprise

JEL classification: A14, F20, F60

ПРЕДУЗЕТНИЧКИ ДУХ У СЕОСКОМ ТУРИЗМУ ПОМОРАВЉА, ЦЕНТРАЛНА СРБИЈА

Када је у питању развој предузетништва малих и средњих предузећа у Србији, посебна пажња се придаје развоју малих, породичних предузећа, углавном у области прехрамбене индустрије, као основе за развој сеоских подручја. Стално се говори о плановима за оживљавање српског села. Разлог томе јесте повољан географски положај, богата природа, занимљива традиција и историја. Треба обратити пажњу на чињеницу да 85% територије Србије има руралне одлике и да на њој живи око 50% становништва. У овом раду је путем анкетирања истражено пословање предузетника на селу у области туризма на територији Поморавског округа. Испитано је случајним узорком 50 предузетника са територије Поморавског округа, у питању су

¹ racapn@gmail.com

угоститељско–смештајни објекти, рекреативни центри или винарије које се баве прерадом грозђа и производњом вина. Заједничко већини предузетника је да послују као породични бизнис, а високе стопе пореза и слабо уређена инфраструктура у локалним заједницама јесу основне препреке за даље напредовање и развој ових предузетника. У даљем тексту биће наведене и испитане хипотезе и биће обрађени добијени резултати.

Кључне речи: *предузетништво, рурално подручје, Поморавски округ, сеоски туризам, породични бизнис*

Introduction

Every area in Serbia can be divided into rural or urban according to legal regulations, but they can also be classified according to different features, such as population, statistical characteristics, and the number of agricultural population (Mitrović, 2015). To put it simply, the rural areas are those which are not urban. In Serbia, there are around 6000 of such areas. After World War II and up until today, a vast number of migrations from villages to cities have occurred. The biggest decline of population in rural areas occurred between 1961 and 1971 (Stevanović, 2006). What characterizes these areas are the unfavorable age structure and depopulation.

The objective of this research is to determine the importance of entrepreneurship in the Serbian village, as well as the impact of this phenomenon on the improvement of rural areas, which would aid in declining the number of migrations from village to cities. In order to abet the development of entrepreneurship in the rural areas of the Pomoravlje District, it is necessary to determine the current state of their development, establish the causes of negative and positive impacts on it and, lastly, ascertain the future directives for their development which would help these areas improve. The limiting factors of the entrepreneurial growth in rural areas are poor transport infrastructure, the lack of interest of travel agencies in promoting natural and cultural heritage, low quality of service, and the lack of skilled staff who specialize in the coordination of entrepreneurial growth in rural areas. It is estimated that around 30% of tourists in the world opt for this kind of tourism because they are eager to discover new areas, different customs, and cultures, and to experience a holiday in the countryside (Mitrović, 2015). The creation of small and medium-sized enterprises in the countryside would revive these areas and offer a solution for those who want to escape from the daily grind. These kinds of enterprises represent the pillars of economic growth in one country. Agricultural households would offer their tourists the sense of calmness, freedom, and relaxation, some fresh air, preserved nature, and also bona fide Serbian cuisine. With the significant changes in tourism in the last couple of years, there has been a surge in demand for alternative forms of tourism, and therefore for rural tourism.

In accordance with the set objectives of this research, the paper proposes the following hypotheses:

→ H1: The rural areas of Serbia represent potentials for the development of rural tourism in Serbia.

→ H2: The entrepreneurial growth in rural areas can contribute to economic growth, increase standard and quality of living for the population in the Pomoravlje District.

→ H3: The analysis of work of the entrepreneurs in the Pomoravlje District reveals the current state and how the local self-governance body and Serbia could encourage the entrepreneurs to base their work in the rural areas.

Literature Review

Rural areas in Serbia are depopulated and are constantly losing population, and the average age of those living there is above 60 (Strategy of Tourism RS, 2005). The availability of able-bodied and educated people in the countryside is the main prerequisite for the entrepreneurial growth and for the creation of tourism in villages. The most appropriate definition of entrepreneurship, which would fit into the context of development of rural areas, is a broad one which perceives entrepreneurship as: “the force for resource mobilization which behooves it to fulfill the needs of the market”, “the capability to make and build something from scratch” (Gajić, M., Gajić A., Stevanović, 2008). Lately, in Serbia, there has been a gradual development of a product of rural tourism which is diverse in order to satisfy every need. In the Western Serbia, this product is the restoration of old rustic Serbian houses, while in Vojvodina the so-called Salaš tourism is widely recognizable as a typical rural experience of that region. This product provides travel agencies with rural areas, hot springs, rivers or lakes, and presents its tourist with traditional hospitality and life values of the local population. It also represents the steppingstone for economic growth and improvement of the standard of living in rural communities, on the basis of sustainable development and preservation of natural resources (Strategy of Tourism RS, 2005).

The significance of entrepreneurship is seen by taking a closer look at the creative ability of individuals or groups that run the enterprise to produce new things. They are characterized by a special kind of behavior that involves: taking initiative, taking the business risk, possessing business creativity, ability to organize and come up with innovations for business activity in all aspects which require that (Radović Marković 2007). The concept of local entrepreneurship that deals with rural tourism could be based on the fight against spontaneous entrepreneurship programs, regardless of the strategic guidelines, production of a wide variety of development projects with projects for investment, suggestions for advancement of entrepreneurship at the local level, through state and local community activities (Jakovljević, 2011). It is essential to emphasize that entrepreneurship in rural areas does not differ particularly from that in urban areas. Entrepreneurship in rural areas involves the discovery of unique joint resources, inside or outside the field of agriculture. This can be achieved by expanding the basis of the agricultural household so as to include the entire non-agricultural use of available resources, which can be realized by any kind of enormous change in soil usage or different production levels from that which is heavily based on agriculture. Thus, an entrepreneur in the rural area is someone who is willing to remain in such environment and contribute to the production of local goods. For this reason entrepreneurship in rural areas is founded on a close-knit community and is

characterized by strong family ties and relatively strong influence on the surroundings (Gajić, 2014; Pavlovic, Krstić, 2016).

The economic structure of rural areas in Serbia is still heavily based on natural resources depletion. The traditional, mono-functional agriculture is widespread and Serbia is one of the agrarian societies of Europe. Heterogeneity of natural resources, private land ownership, and experience with business cooperation, which are some of the prerequisites for diversification and development of rural economy, aren't used sufficiently (Bogdanov, 2007). In order to achieve the expected effects of rural tourism, planned encouragement and functional organization are necessary in order to develop tourist offer. Apart from this, rural tourism product can be locally controlled, based on authenticity and promotion which highlights realistic expectations and use of the product. All this would lead to the faster development of rural tourism in Serbia, which is currently bellow real potentials (Gašić, Perić, Ivanović, 2015). Citizens from the urban areas spend a lot of time in the rural areas of Serbia, and for them, the village is a cultural framework where life differs from their everyday one in the city. The bearers of economic growth of rural areas are indeed enterprises which prove their quality with competitive advantage and improvement of position on the market (Avlijaš, 2008).

Lack of funding, the economic crisis in Serbia, reduced number of tourists and inadequate infrastructure are some of the factors which have influenced the development of entrepreneurship in rural areas. Because of these factors, the state is required to provide incentives which would help entrepreneurs develop in the field of rural tourism and help them with their businesses. Programs for support of agriculture and village in Serbia involve a wide variety of support measures, including grants for buying farm equipment, maintenance of mechanics, purchasing livestock, cultivating crops and similar (Bogdanov, 2007). Small and medium-sized enterprises and the government adopt two different perspectives when it comes to supporting services. From the perspective of SMEs, support services lower the costs of movement for SMEs, enabling them to have bigger funds, which in turn allows them to use that revenue differently. On the other hand, those services are justified for the government because the tax rates are higher, which in turn lowers unemployment in rural areas and increases economic growth through smart investment (Avlijaš, 2008).

For the development of rural areas to commence, it is necessary to engage and educate the local citizens, to come up with strategic plans on a local level, and to form local work groups or development groups (Lazović, 2004). The role of the state would be reflected in co-financing the development plans which are related to the improvement of infrastructure and basic living conditions, which is the prerequisite for the development of rural tourism (Tourism Development Strategy RS, 2006). The best example of entrepreneurship in the countryside is the creation of small and medium-sized enterprises in the food industry (Ilić, Vujičić, Mihić, 2014). Tourism needs agricultural products during the year, while agriculture needs consumers.

Entrepreneurship in the rural area of the Pomoravlje District

The Pomoravlje District contains 6 municipalities in the central part of Serbia; they are settled around the Great Morava River: Paraćin, Ćuprija, Jagodina, Rekovac, Svilajnac, and Despotovac (www.pomoravski.okrug.gov.rs). It stretches over 2614 km² and has a population of 242 931 in 191 neighborhoods, 6 of which are urban and 185 rural areas (www.popis2011.stat.rs). According to the data of Statistical Office of the Republic of Serbia, during the year municipalities, Paraćin and Jagodina have the highest percentage of tourists, both local and foreign (www.stat.gov.rs).

These two municipalities are the largest in the Pomoravlje District. Paraćin stretches over 542 km² and contains 34 villages, while Jagodina stretches over 470 km² and contains the impressive number of 53 villages. European route E-75 runs through these two municipalities, so all these villages are easily accessible to tourists. A double-track railway that connects southern Europe and Asia with central Europe runs through these areas. The thing that attracts tourists to visit these areas, besides the fact that they are easily accessible and have a good geographic position, is history, culture, and the considerable number of rural households ready to host tourists, numerous cultural and historical monuments and an array of events such as: Meeting of Villages, Morava, my Sea, Convocation in Levač, Bean Festival...

The offer should be directed to the needs of people who live in the city, distancing them from stress and pollution. The services should include hunting, fishing, rafting, familiarizing tourists with wildlife, cultural and historical monuments and life in the countryside. The villages of this area provide a vast number of activities, ranging from a stroll through the forests and orchards, to cycling and horseback riding, to hunting and fishing, collecting medicinal herbs, mushrooms, and forest fruits. Tourists can get acquainted with old crafts, and also with agronomy and breeding.

Research methods

This research uses an analysis which entails the process of determining the state of small enterprises and entrepreneurs who work in the Pomoravlje District, and who impact the development of rural tourism. Research was conducted in the period from spring to autumn 2016, with the aim of making graduate master work. From the total of 62, 50 entrepreneurs from these areas responded to 26 questions from the questionnaire either through surveys or formal and informal interviews. The majority of questions (18 out of 26 questions) are closed-ended ones, and the respondents have to circle one or more answers or rate the given answers from the Likert scale from 1 to 5, where 1 represents the lowest and 5 the highest mark. Most answers are already given, while a particular number of questions (8 out of 26 questions) require a written answer. The first part of the questionnaire deals with the basic information about the company, followed by questions which are connected to the founder, CEO/entrepreneur and which help to compile the information about them. The next section is information about business, i.e. plans, expectations, success so far, the aspects of the business that need to be advanced, as well as the main problems, obstacles, and influence of the global economic crisis on the business. The questionnaire also comprises of questions which refer to the information on

the equipment and how old it is, the former and future plans for investments in it, as well as whether their enterprises have or are planning to introduce new quality management systems standards and certificates. The last part of the questionnaire represents the marketing aspect of a business. It refers to supply and demand, import and export, competitiveness, as well as the limiting factors on the market. This part also comprises of questions about enterprise funding. Therefore, by filling out questionnaires, interviewing founders or responding to Google Form survey, this research obtained results.

The important aspects which have an influence on the development of entrepreneurship in rural areas are identified in this research by using t-test. The effects of the measures taken in Serbia are examined with the help of inductive and deductive approaches. These measures are aimed at encouraging the entrepreneurship development in rural regions and this research has come to certain conclusions about their realization. The statistical method is used in order to easily group the data, arrange and compare the quantitative results of the research which are obtained by using appropriate techniques of data collection.

Analysis

The goal is to research for what business is the Pomoravlje District most suitable for and to suggest new ideas that could aid someone in starting a business which isn't as widespread in this District, and which would still attract tourists and generate income to these municipalities. This analysis explains the attitude of the country towards small and medium-sized enterprises in the rural areas, and also towards family enterprises. The primary objective of this research is to obtain a reliable analytical background in order to recommend incentives for entrepreneurship development, primarily for the small family enterprises in the countryside. The significance of the research is based on the fact that these kinds of enterprises establish the framework for economic growth of rural areas because they are the main bearers of employment, job creation and the leading participants in raising GDP.

The survey includes enterprises which mainly provide tourists with holidays in the countryside, a place to stay overnight and the taste of Serbian traditional cuisine. Also, they introduce their guests to culture and tradition of the rural region, as well as with natural and cultural heritage. The most predominated enterprises in the Pomoravlje District are the ones which work in grape production, winemaking and hospitality industry. From the total number of 50 questioned entrepreneurs, 40% answered that this is their primary activity. These enterprises provide their guests the tour of vineyards and wineries, wine and fruit brandy tasting, as well as the traditional lunch in the winery. A slightly smaller number of enterprises operate in recreation and hospitality management; those are the new enterprises which, besides basic activities, include in their offer active rest and wellness. The list of respondents also includes Park Minijatura, the only enterprise whose activity is rural tourism. This enterprise possesses scale models of medieval Serbian monasteries, which are built in the ratio 1:17. In determining how long these enterprises operate, the majority of respondents opt for 10 years. Statistically, 66.7% of these enterprises are founded by a man who is also the owner and the Chairman of the Board, while 26.7% of the enterprises are in group ownership. When it comes to the number of employees, all the respondents have up to 50 employees and so they fall into the category of small enterprises, and 33.3% of them are family businesses. When

asked whether they need a skilled workforce, 80% of participants answer that they do. And when asked whether there is an employee training program, 73.3% of participants respond that there is, while rest of them said that there isn't. 93.3% of participants operate on their own property. All the enterprises have purchased new equipment for their business and have invested in infrastructure in the last three years, so as to climb the market ladder and gain competitive advantage. The respondents agree that their business is directed to all the regions in Serbia, but also to the foreign countries because they want to attract tourists with their activities and custom offers. When asked what conditions are necessary in order to improve work, the entrepreneurs agree for the following order:

1. Improvement of infrastructure, road construction, interior design, proper lighting which can be achieved by the help of the local community (94% of the questioned entrepreneurs gave this answer) ;
2. Preservation of environment and natural heritage (80% of the questioned entrepreneurs gave this answer);
3. Business incentives grants (76% of the questioned entrepreneurs gave this answer);
4. Business internet regulation (72% of the questioned entrepreneurs gave this answer);
5. Determining quality management system standards (66% of the questioned entrepreneurs gave this answer);
6. Education of local people (60% of the questioned entrepreneurs gave this answer).

In regards to the business intentions of the respondents in the following three years, 80% of them answer that they plan to expand their business, and 20% of them plan to maintain the same scope of work. The majority of entrepreneurs do not possess the quality management system standard, not even the basic ISO 9001 quality management system, which would direct the enterprise to improve performance. Four enterprises possess HACCP quality management system, which deals with food safety through analysis and control of chemical, biological and physical hazards from raw material production, procurement, and handling, manufacturing, and distribution. Out of 50 enterprises, only one has OHSAS 18001 quality system management, which is for occupational health and safety.

All the respondents are ready to aid their local communities by continuing to work and employ new, primarily young people. When asked whether they use any local community services, 60% of respondents answer that they do, while the rest of them don't. During the assessment of the local self-governance body, the majority of them, 39.6% to be exact, marked them with 4. The highest mark is given to the local self-governance body in Jagodina, while the lowest to Despotovac. When it comes to tax rates, the majority of respondents, 33% to be exact, marked it with 3. Entrepreneurs from Jagodina are satisfied with tax rates and this municipality has the highest marks. The lowest mark is given to Despotovac for its high tax rates which entrepreneurs have to pay. The results of infrastructure maintenance are devastating because 40.6% of respondents mark it with 1, while no one marked it with 5. Percentage wise, 86.7% of respondents believe that the global economic crisis in the country affects their business, but they haven't yet come across the need for layoffs. All of the respondents say that their products and services are intended to all the local tourists, but

also foreign ones. 60% of the respondents buy their goods from the local community, while 40% of them buy their goods on a foreign market. When it comes to supporting in enterprises, the partakers select promotion as the one which is used the most, then business connections, market research, IT support, innovations and quality management system standards, while consulting is the least used. When asked about funding, 80% of them have independent sources of funding in the Pomoravlje District, while the remaining 20% use external sources, such as bank loans, foreign loans, loans from state institutions, guarantees, financial leasing, donations and lastly they borrow from their friends.

Discussion

The first hypothesis of the article is that the rural areas of Serbia represent potentials for the development of rural tourism in Serbia. This analysis proves that. The results of t-test show that $\beta=0.74$ and $t=3.84$. It has been determined that the development of rural tourism affects agricultural households and the local community, the prosperity of undeveloped regions, employment of the members of the household, promotion of handicrafts, preservation of customs and old crafts.

The hypothesis that entrepreneurship development in rural areas can aid economic growth, increase standard and quality of living of the population in the Pomoravlje District is true ($\beta=0.66$, $t=2.54$). As stated in the “Entrepreneurship as an economic force in the development of rural areas in Serbia” (Gajić, 2014), entrepreneurship in rural areas is viewed as means for employment, while the residents in the countryside perceive it as an instrument for raising the standard of living. Also, women view it as a potential for employment close to home, which would bring about independence for them.

The analysis of entrepreneurs’ work in the Pomoravlje District proves the last hypothesis, about how the local self-governance body and the state can encourage entrepreneurs to base their work in the rural areas. The people will continue to live in the rural areas if they are given jobs and if they generate income for their own family business. The results show that $\beta=0.46$ and $t=3.02$. By developing the rural areas, conditions for balanced regional development are met.

The tourists expect that the rural areas will revive the rural spirit and landscape, possibility to watch rural activities and participate in them, provide unique food and beverages from those areas. As the group of authors in the Economic Horizon volume 8 state, the things that interfere with the entrepreneurship development in the countryside are small properties and unregulated cadastre; obsolete technology; insufficiently organized market; insufficient subsidies; low productivity; the lack of skills which are needed in the modern agriculture. The number of entrepreneurs needs to be greater in order to accelerate economic development in rural areas. A small number of people in the countryside need to unite and start a family business. Primarily, they need the help of the country and local community. The local communities should be given more funds, but also complete authority so that they can end economic stagnation by improving local development policy. A group of authors for Executive Newsletter in the paper Development of Rural Tourism in the Republic of Serbia stress that in order to bring about expected effects of rural tourism, it is necessary to encourage the rise of tourist offer of the village, that the product is authentic and promotes the given area.

The environment has the biggest impact on entrepreneurship. The formation of supportive community, which is achieved by educating the local population about the positive influences of a family business, impacts the development of rural area. There are institutions that deal with this issue in Serbia and that try to help future entrepreneurs expand managerial skills and knowledge. Those are Centre for Organic Production, Centre for Promotion of Entrepreneurship, Centre for Socially Responsible Entrepreneurship, Affirmation and Development Centre. If the Serbian government does not strive to raise awareness of its nation of possibilities for better life and income through entrepreneurship development in rural areas, then people need to do so themselves, by uniting with the local self-governance body. The beginning of this idea would bring about the understanding that it would raise the standard of living. Agricultural households would be enlisted, they would renovate their houses and gardens, thus revive the environment. The neighboring municipalities would follow in their footsteps, and soon the entire Serbia would “understand what it is going on”.

This paper analyzed entrepreneurship in the Pomoravlje District. The topic hasn't been researched before and it is difficult to find information which depicts the state of entrepreneurship in this area. The businesses of entrepreneurs are analyzed through the survey. They all have come to an agreement that this is a suitable area for someone to start a business in, primarily it is suitable for hospitality and recreation industry which would promote the natural and cultural heritage of the Pomoravlje District, and which would attract tourists.

Conclusion

Serbia has excellent conditions to develop rural tourism because of preserved nature, biodiversity, landscape diversity, favorable weather and numerous hydrographic resources. Cultural values and goods include cultural monuments of exceptional importance, diverse rural areas, and gardens. Rural tourism is important for sustainable development of rural areas, which abets the preservation of local identity, tradition, and customs; it protects the environment, strengthens the traditional and organic farming and helps the development of rural areas based on sustainable development. Also, rural tourism raises awareness of the local population about the economic and cultural value of natural and cultural sites. The important requirement for the protection and sustainable use of biodiversity is the involvement of communities in the development of rural areas. Entrepreneurship in rural tourism is a relevant factor, but without any state financial aid programs, the development will not be successful. The support of entrepreneurs in rural tourism should be direct (aids, subsidies, grants) or the country should invest directly in them (shared capital). The involvement of different state bodies and institutions which will financially assist the development of the program for rural tourism is of paramount importance. Also, it is important to encourage cooperation of agricultural households by strengthening the existing and creating new societies. All three hypotheses (H1: The rural areas of Serbia represent potentials for the development of rural tourism in Serbia; H2: The entrepreneurial growth in rural areas can contribute to economic growth, increase the standard and quality of living for the population in the Pomoravlje District; and H3: The analysis of work of the entrepreneurs in the Pomoravlje District reveals the current state and how the local self-governance body and Serbia could encourage the entrepreneurs to base their work in the rural areas) have been accepted according to the results of this research.

The development of entrepreneurship in these areas would stop migrations to urban areas and would revive Serbian village, culture, and tradition.

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Zaklina Spalevic¹
*Singidunum University, Faculty of Tourism
and Hospitality Management, Belgrade*

Milos Ilic²
University of Pristina, Faculty of Technical Science, Kosovska Mitrovica

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THE USE OF DARK WEB FOR THE PURPOSE OF ILLEGAL ACTIVITY SPREADING

Abstract

The development of information and communication technologies, especially the Internet, has led to drastic changes in all spheres of human life and work. Although some of these changes have very positive effects, others are extremely negative. One example of the latter is a new kind of terrorism and criminal activity which is based on the use of the non-indexed part of the Internet which is called dark Web. Generally positive features such as access to information about Internet users, anonymity and protection of personal data are used with the evil intention of acquiring illegal profit and spreading ethnic hatred and intolerance. This paper gives a brief overview of documented ways for accessing this part of web, and examples of abuses of its features.

Key words: Dark web, Deep Web, Cyber terrorism, Tor, I2P.

JEL classification: K24

УПОТРЕБА DARK WEB-А У У ЦИЉУ ШИРЕЊА ИЛЕГАЛНИХ АКТИВНОСТИ

Апстракт

Развој информационо комуникационих технологија, пре свега Интернета, довео је до драстичних промена у свим доменима људског живота и рада. Неке од ових промена имале су веома позитивне ефекте, док су поједине имале крајње негативне и непожељне. Једна од таквих промена јесте појава нове врсте тероризма и криминалних активности која се заснива на употреби неиндексираног дела Интернета који је назван дарк веб. Позитивне могућности у виду доступности информација сваком од корисника Интернета, анонимности и заштите личних података овде су искоришћене са крајње злом намером стицања нелегалне добити и ширења националне мржње и нетрпељивости. Рад даје кратак преглед документованих начина приступа овом делу веб-а, као и примере злоупотребе његових могућности.

Кључне речи: Тамни веб, Дубоки веб, Кибер тероризам, Тор, I2P

¹ zspalevic@singidunum.ac.rs.

² milos.ilic@pr.ac.rs

Introduction

The Internet, used on a daily basis by personal users, as well as by commercial companies and organizations, includes all sites and portals that are indexed by a public web browser. These sites and portals are connected with each other via the incoming and outgoing links. These pages are crawled by indexing robots using links that lead to them and links that lead from them to other websites (PC, 2015).

These pages are expected to be static, installed on the servers and to have visible html code. Any change to the web portal or any page results with new content being uploaded to the server. In this way, the entire process is visible and public. Another feature of the Internet is the DNS (Domain Name System) database, which associates hostnames with their IP addresses. DNS databases are defined and used to enable transparency, to control the flow of information and to protect users from spam or certain contents. Increasing control and monitoring of Internet users in terms of information and content they publish and portals that visit, has led to development of a different version of the Internet, where the degree of anonymity is higher. Many users are aware that everything that is published on the Internet remains permanently visible in some form. That is why even the average user comes to the idea that at least for some of the activities should use so-called dark Web, or deep Web. Dark Web is a general network which can be accessed only by using specific software, configuration, or with the authorization, often using non-standard communication protocols and ports.

Unlike static pages from the indexed part of the Internet (visible Internet), dark web pages are dynamic, with html code created based on results of contents retrieved from their own databases. This method for creating independent web site makes crawling this site impossible for indexing robots. Precisely, this is one of the reasons why these pages remain non-indexed by the public Internet browser (Goodman, 2015). From another side dark web weba sites contain rich content used for routine communication and propaganda dissemination (Abbasi & Chen; 2005). These forums contain static and dynamic text files, archive files, and various forms of multimedia. Collection of such diverse-content types introduces many unique challenges not encountered with standard spidering of indexable files. On a related note, a Dark Web forum crawler also must assess the merits of various collection-update strategies. It is for this reason that the idea of high degree of anonymity in communication and work was used by malicious users in order to address the various illegal activities, from rental services, through drug trafficking and weapons, to human trafficking.

The paper is organized as follows. The second part shows the theoretical background of deep web and dark web, different ways of accessing as well as similarities and differences with the visible part of the Internet. The third part presents examples of the use of dark web services, from the user perspective. Also, examples of different illegal activities that can be found by searching dark web are presented. The fourth part discusses the key conclusions of this study. Last section provides a list of references used to gather information about dark web and illegal activities on it.

Deep and dark web

In the literature and everyday use, when referring to non-indexed part of the Internet two terms are intertwined: dark and deep web. Deep Web is a term that encompasses

everything that Google and other public Internet browsers are not indexing, and therefore can not be returned as search result. These may be trivial, such as comments on the forums that can be accessed only by registered users, Facebook posts that are set so that only friends can see, private YouTube content which can be accessed only via forwarded link. Also, academic articles that require subscription fee in order to gain access, as well as many other similar item (Todorovic, 2015).

Dark Web is a certain amount of content on the deep web used for promotion or distribution of illegal activities. Web sites that allow dealing with illegal activities are mostly hidden behind *.onion* web domain and can be accessed using special search engines (Todorovic, 2015). Dark Web is almost completely anonymous, and it is therefore used by groups that want to remain hidden from the government institutions and agencies in charge of law enforcement. To further protect the users of such systems, money transactions are performed using a specially created digital currency called Bitcoin. Creation and encryption of the currency is supported by the organization that manages the payment, bitcoins transfer and their conversion into conventional money flows.

One of the ways to access dark web is Tor (*The Onion Router*) network, whose primary purpose is to serve as a gateway to this part of the Internet. To hide the address of the Internet user, Tor redirect signals through nearly 6,000 servers (Cekerevac, Dvorak, & Cekerevac, 2016). So as to create a private and secure connection inside the Tor network, the client application incrementally builds a connection between the source and destination of data packets, which consists of encrypted connection between randomly selected server nodes. This relationship occurs in steps, so that individual server knows only from which server packets are received and to which server they should be forwarded. This is achieved by using a special key for encryption at every step. Once the connection is established it is possible to transmit different types of data using different software packages (CARNet, 2007).

Apart from Tor-a which is in most cases used to share files, I2P (*Invisible Internet Project*) network layer is used to provide anonymous communication between applications. This layer supports a variety of protocols and applications. Each established connection between two users is being protected using special encryption. The comparison of functionality and security offered by Tor and I2P has shown that I2P is more resistant to attacks by analyzing traffic flow data (Mergen, 2015).

Freenet is another similar solution that is simpler and more convenient use by the broad masses. Access is done from the browser, while in the background the application establishes a connection. The user can choose the level of security on the network. All the communication and sharing of files is via P2P, and every time one establishes the connection, new path is created. For this reason, every reopening of pages takes more time than in the case with the other aforementioned sector and technologies.

The police fact that close to 300,000 Germans are using some form of access dark web network testifies to the popularity of this service. The data show that, at global level, more than three million users access the content of dark web. If we compare the amount of data stored in the dark web, it is forty times larger than the visible part of the web and is about 750 terabytes. The entire content is mostly stored in specific databases, as property of the organizations and individuals (Arslani, 2015). Based on this, the visible part of web is about 4%, while the remaining 96% belong to the deep web.

Examples of the use of dark web services

In different types of researches five categories of terroristic activities on the Internet are identified. Those categories are: propaganda (to disseminate radical messages), recruitment and training (to encourage people to join the Jihad or other terrorist organizations, and get online training), fundraising (to transfer funds, conduct credit card fraud and other money laundering activities), communications (to provide instruction, resources, and support via email, digital photographs, and chat session), and targeting (to conduct online surveillance and identify vulnerabilities of potential targets such as airports). Besides these categories, dark web services are in use for many other abuses (Tsfati, & Weimann, 2002). Some of the examples collected from different sources are described in following paragraphs.

One of the examples of the dark web usage disclosed by the competent anti-drug entities is a portal for drug and other illegal goods trafficking called Silk Road. Its founder and owner was Ross Ulbrich, 29 year old programmer, who introduced himself under a pseudonym Dread Pirate Roberts. Ample evidence was found on his laptop. From 2011 to 2013 he created an empire worth \$ 1.2 billion, only with the help of a laptop and the Internet. After only three weeks of trial, the jury of twelve declared Ulbricht guilty on all seven counts, including one on charges of money laundering, drug trafficking and computer hacking. He was discovered when the police found his message from 2010 where, at the time of carelessness, he was referring interested parties to visit the Silk Road, signed a different name (“altoid”), under which he sought professionals in bitcoin community to be the leading developers, and gave the address for communication (Amika, 2016; Zetter, 2013). This site was operated like any other portal for online purchases. Ordered goods were delivered by postal companies. Postal companies do not check the contents of the shipment in order to provide better services to users, making this method of delivery a very convenient way for illegal trade. At the same time postal company can face problems if the competent authorities establish that the it is often used for these types of delivery (Spalevic, Ilic, & Palevic, 2016). The relentlessness of people who deal with this kind of crime is evidenced by the fact that only a month after Ulbrich arrest and closing of the portal, portal became active again in the dark web, this time in version 2.0. The site quickly expanded and, according to data from the FBI, had an average of 150,000 visitors and monthly income of around \$ 8 million from the sale of goods and services. After a year's work site was shut down, while the administrator Blake Benthall arrested (Cook, 2014). That lasted only an hour, after which portal was started again and continued to work, this time in version 3.0. This fact demonstrates the strength of dark web and stability of portals on it (Knibbs, 2014).

Until 2012, the Silk Road owned a sister site - The Armory, which specializes in trade of firearms, blunt and sharp object for injuring and killing. The same site went off due to poor attendance after a period of time. Sales of weapons and ammunition is carried out in a similar manner across other sites, some of which guarantee the delivery around the globe, under the motto *“We deliver globally, because all people have the right to protection themselves”* (Lukovic, 2014). Everything can be found, from pistols to C4 explosives. Delivery is made in special packages so that they can pass x-ray inspection, or often packed in toys, various other instruments and electrical appliances (N1, 2015).

There are a number of examples where children were used for gaining money. During 2011, Europol, in coordination with thirteen different countries, arrested 184

people suspected of child abuse and the spread of children pornography in form of images (Europol, 2014). A similar campaign was carried out in the UK. In this action 650 people accused of different forms of child abuse, from possession of child pornography images to pandering were arrested (BBC, 2014). In 2015, on the territory of Northern Ireland 37 people were arrested based on charges of pedophilia and distribution of child pornography using Tor (BBC, 2015).

There are examples showing that dark web is the perfect place for Cyber Crime. Users here can buy a variety of malware. At the same time, visitors of websites can become victims of various types of malware, distributed using phishing. One of such malware is vawtrak - banking Trojan distributed via e-mail (Sancho, 2015). Another large group of malware that can be found on the dark web are the CryptoLocker malwares. These malware, after accessing victim files, perform the encryption. After encrypting files, the victim is being redirected to a page where it is asked to make the payment if they want to regain control of their data. Very often the request for payment and information necessary to complete the transactions are written in the native language of the victim. The role of Tor in these transactions is hosting sites for payment in order to execute transactions using bitcoins (Ciancaglini, Balduzzi, McArdle, & Rosler, 2015). In addition to malware, interested parties can use dark web to hire hackers to carry out various types of hacker attacks on their behalf. Depending on the complexity and risk of the task, rates range from a few dozen to several thousand dollars. They offer a variety of services, from correcting assessment in schools through the theft of access codes for different functions and sensitive authoritative data. The Chinese group Hidden Lynx claims to have up to hundreds of professional cyber thieves, who broke into the computer systems of Google, Adobe and Lockheed Martin.

For people with more sinister intentions and serious willingness to go down in the dark world of the dark web, there are also services of professional assassins. One of the examples described in (Lukovic, 2014) describes a person with moral and highly flexible business principles, supposedly verified mercenary “with eight-year experience” which offers services which are exclusively paid forward in Bitcoin’s. During the contact with such persons, only exchanging information on the victim is allowed. The requirement is that all communications, as well as any contact by email must be encrypted. If any part of the communication is not encrypted, it will be deleted.

Another portal that offers such services is known as Lovecraft. The ad states that the members of the organization are former soldiers and mercenaries of Foreign Legion. Moto of this organization is “*The best place to store your problem is grave.*” This portal pays great attention to the protection and privacy of customer communications. Name, home and work address, as many photos and information about who the victim lives, license plate, description and picture of the vehicle used are informations needed about the target. Depending on the agreement, a team of killers states to prepare for a job, travel, locating and tracking targets require about two months, and the cost of purchasing airline tickets, weapons and accommodation, are not included the initial price. One portal called C’tulu offers different ways of murdering, from regular through torture and rape, to the bombing. Prices of services range from \$ 3,000 to \$ 180,000 depending on the chosen category and social status of the victim. Price, of course, differ on whether that person to be killed belonged to the masses, or is a public figure, a politician, a member of law enforcement, etc.

In the dark web, counterfeit money can be bought. In addition to the money, a guarantee is almost always given, as well as the description of the creation process showing that, as the sellers say, the counterfeit money is created in the same way as real money. All currencies that are worth falsified are available, but the quality and quantity vary. In these types of transactions, it is common for 600 US dollars to obtain 2,500 counterfeit, a 500 euro 2,000 counterfeit. All transactions are carried out with the promise that they can undergo standard checks, including that of ultraviolet light (Vijesti, 2015). In many cases, of course, pay for the counterfeit money uses Bitcoin.

Stolen information about the different accounts, credit card numbers, numbers of bank accounts, online auctions can also be purchased. Atlantic Carding is a location in a dark web where you can buy information about other people's credit cards, addresses and related personal information. Prices range between 5 and 80 dollars. The quality of information depends on the price. On the other hand, accounts sale is done in one of two ways. The first method involves the purchase of a single account, provided detailed information on the amount of funds on it. Another way involves the purchase of large quantities of accounts, of which a certain number probably valid. The first method is far more cost-effective, because the customer has insight into the amount of funds in the account, providing better guarantee that the funds invested will be recovered, and the extra money earned. In addition, there is the possibility of buying physical debit and credit cards of different banks (Ciancaglini, et al., 2015).

There are several sites on the dark web claiming to selling passports and identity documents. Price of these services depends on the country in which the documents are produced, as well as from the seller. The validity of these documents is difficult to verify, especially when it comes to citizenship. These services can also be created for fraud for immigrants who want citizenship of the country in which they are located at all costs. For example, price for passports, driving licenses and identity cards for Australia is 800 euros at portal called Fake ID. At the same portal, the most expensive document are for USA and the cheapest for Malaysia (Ciancaglini, et al., 2015).

In addition to the above, the more bizarre things can be found on the dark web, such as trafficking in human organs. According to the some websites, the kidney can be purchased for \$ 200,000, heart for 120,000, liver for 150,000, a pair of eyes to 1,500 US dollars. In addition, various beauty products from human flesh and skin can be purchased (N1, 2015; Falconer, 2012). Also, it is possible to find a wide variety of topics that meet the various fetishes. Some of these contents are horrific footage of last conversation and words of passengers in a crashing plane, a prisoners on the day of execution (for example, the electric chair in prison in Texas) or pornographic materials in which women gauze small animals with heels. Different offers in which people offer themselves as food or other types of cannibalism also can be found. In the dark web there is well known portal referred as Red Room, the place where the torture and killing of people are shown via live stream (Mitrovic, 2016).

Terrorists also share ideologies on the Web that provide religious commentaries to legitimize their actions. Based on a study of 172 members participating in the global Salafi Jihad, it is concluded that the Internet has created a concrete bond between individuals and a virtual religious community (Sageman, 2004). Web appeals to isolated individuals by easing loneliness through connections to people sharing some commonality. Such virtual community offers a number of advantages to terrorists. It no longer ties to any nation,

fostering a priority of fighting against the far enemy (e.g., the United States) rather than the near enemy. Internet chat rooms tend to encourage extreme, abstract, but simplistic solutions, thus attracting most potential Jihad recruits who are not Islamic scholars. The anonymity of Internet cafes also protects the identity of terrorists. However, Internet can not be in a direct contact with Jihad, because devotion to Jihad must be fostered by an intense period of face-to-face interaction (Chen, Chung, Qin, Reid, Sageman, & Weimann, 2008). In addition, existing studies about terrorists' use of the Web mostly use a manual approach to analyze voluminous data. Such an approach does not scale up to rapid growth of the Web and frequent change of terrorists' identities on the Web.

One of terrorist web sites Alneda.com identified by the U.S. Government called itself the “*Center for Islamic Studies and Research*,” and provided information for Al Qaeda (Thomas, 2003). To group members, terrorists use the Web to share motivational stories and descriptions of operations. To mass media and non-members, they provide analysis and commentaries of recent events on their Web sites. For example, Azzam.com urged Muslims to travel to Pakistan and Afghanistan to fight the “*Jewish-backed American Crusaders*”. Another web site Qassam.net appealed for donations to purchase AK-47 rifles.

Web portals on the Dark Web are protected in various ways. One of the main ways is to check the behavior of visitors who do not follow the standard pattern. If administrators recognize suspect behaviour of visitors they launch a basic check. Surveillance can be identified if a visitor can see only active row in the text, but no previous rows (Fu, Abbasi, & Chen, 2010). The next step is to put the so-called key logger program on visitors computer, so as to record everything a visitor keystroke. In this way, maximum control over all visitor activities is achieved until administrators check who the visitors are and what their intentions are.

Conclusion

It is widely recognized that the Internet is the place where you can find information about everything and everyone. Whoever used a service on the Internet once, entered their data or created the account, is permanently remembered in one of the databases. In addition to the information generated using a large number of services, large-scale trade of different types of goods, even between countries at opposite ends of the world is performed daily. When taken into account that the visible part of the Internet represents 4% of all that is on it, large volume of contacts, information and trades might seem trivial in comparison to what is in the deep web. This fact challenges everyday users to access services that are beyond the boundaries of the visible. The fact that the dark web is not indexed, is used for profit by the different traders of illegal goods. In addition to the profit purposes, it is often used by various terrorist organizations, so as to spread the ideology and communication, as well as to perform arms and human trafficking. Besides terrorist organizations large number of individuals use dark web for different types of trafficking and illegal activities. Some examples of use described in the work undoubtedly lead to the conclusion that in this part of the Internet there is much that is still unexplored and hidden from the general public.

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Stepanov Saša¹
University Business Academy in Novi Sad
MEF Faculty of Applied Management,
Economy and Finance, Belgrade

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Stepanov Nemanja
University of Belgrade, Faculty of Political Sciences in Belgrade

Vukotić Nataša
University Business Academy in Novi Sad
MEF Faculty of Applied Management, Economy and Finance, Belgrade

QUALITY MANAGEMENT OF CATERING SERVICES

Abstract

Today's quality, in terms of high competition and an increasingly growing demands of consumers one of the key factors for the survival of business systems on the market. From the point of customer service quality in the tourism industry, and its expectations are growing every day and more.

By providing continuous and complete quality of service, set the preconditions for achieving customer satisfaction and in this sense by providing the desired quality for them and their satisfaction achieved a number of competitive advantages. The system TQM - Total Quality Management (TQM) is a philosophy that the tourism developed countries finds its application and includes a number of activities to be undertaken in quality assurance. The long-term source of revenue for the company are satisfied customers, both positive propaganda which they perform, thus affecting the new, potential guests, as well as restoring and repeated visits.

Key words: service quality standard, customer satisfaction, loyalty

Jel classification: M54, Z3, Z32

УПРАВЉАЊЕ КВАЛИТЕТОМ УГОСТИТЕЉСКИХ УСЛУГА

Апстракт

Данас је квалитет, у условима велике конкуренције и све већег раста захтева потрошача један од кључних фактора опстанка пословних система на тржишту. Посматрано са аспекта потрошача квалитет услуге у туризму, односно његових очекивања су сваким даном све већа и већа.

Обезбеђивањем континуираног и потпуног квалитета услуге, постављају се предуслови за постизање сатисфакције госта па се у том смислу обезбеђивањем жељеног квалитета за њих и њиховом сатисфакцијом постижу бројне конкурентске предности. Систем TQM - Total Quality Management (управљање

¹ sasa.stepanov@gmail.com

тоталним квалитетом) представља филозофију која у туристички развијеним земљама налази своју примену и подразумева читав низ активности које је потребно предузимати у обезбеђивању квалитета. Дугорочни извор прихода за предузећа представљају задовољни потрошачи, како позитивном пропагандом коју врше, чиме утичу на нове, потенцијалне госте, тако и враћањем и поновљеним посетама.

Кључне речи: квалитет услуге, стандард, задовољство потрошача, лојалност

Introduction

For centuries mankind has evolved to meet the needs that are accompanied by their original communities until today. The essence of human civilization and existence consisted of solutions that allow better quality of life. Quality time is crystallized as a concept without which, from ancient times to the modern era, we can not imagine the progress of humanity and the life of every individual.

Quality as an issue is present in all spheres of society, including entrepreneurship, and the modern understanding of management. Many contemporaries from different scientific disciplines feel that without serious approach to the problem of quality of developing countries and therefore the organization is unsustainable, because they believe that the new millennium will be dedicated to the concept of quality. Globalization thanks to intensifying social relations eventually crosses national borders and boosting competitiveness. Domestic markets are no longer closed but the market turned so that companies their services and products can freely provide consumers around the world. Similarly the organization will lose control over what they can not produce competitively. Organizations that are constantly monitored and improved our business practices and performance have had a chance to survive in the market and profitable business, and depending on the aspiration to increase its share of the market (Brzaković, Radulović, 2014).

In such conditions, the business game ‘quality becomes a major and central obligations and aspects of any organization that is considering the market and its objectives directed towards the long-term success. The quality of products and services competitive influence, all with the only real aim and satisfaction of consumers.

In everyday language, often use the term “quality”. The roots of this expression is found in the Latin word “qualis” - excellent, good quality, which is good for use, which is characterized by good qualities. The association of the term is always something that is well worth, meets expectations, deserves attention.

Depending on the authors in the literature appear different approaches to defining the concept of quality: Jurana (Joseph, 1988), Kotler (Kotler, Keller, 2006), Hellriegel (Hellriegel, Slocum, 2008), but common to all is that quality is a key element of the value of services on the basis of which ensures the positioning of the enterprise in the market, its larger market share which requires mutual satisfaction to customers and staff

International Organization for Standardization (ISO) with its definition in 2000 on the “quality” refers to the totality of characteristics of a product or services that meet the needs and expectations that are pre-determined and its precise interpretation of the 2005 ‘level to

which a set of inherent product characteristics meet the requirements. “ Under the features are considered traits on the basis of which a distinction is made in the assessment of quality.

The quality of service is at the present time is crucial, and the service quality is of great importance for positioning and market survival.

The quality of products and services is becoming more critical market factor that separates business system - the company of others. By meeting the market preconditions that imply the existence of developed market relations, willingness to adapt Manufacturer customer requirements, constant volatility of demand and supply and the obligation of companies to permanent sustainability in quality Despite achieving the desired quality, continuous and maintained it is necessary to constantly conduct research on the needs of consumers (customer - guest) for a certain quality.

Quality of service is the primary means of enterprises to continuously attract customers, retaining and constant quality improvement. He is a permanent gap between consumer expectations and what he really gets that experience. Quality of service includes not only the product supplied already includes evaluating the delivery process.

Quality of service is therefore the level of satisfaction of user needs and requirements, and compliance with the growing demands and expectations.

Quality of service has two main dimensions:

- Technical and
- Functional.

Under the technical quality of the result of the process involves generating services and it can be significantly more objectively assess or measure as opposed to a functional that represents the attitude of subjective observations and refers to how consumers consume services.

Taking into account the importance of quality in relation to the quality of services - customer satisfaction resi must determine shortcomings and mistakes (if any) in order to constantly improve quality. Continuity of quality and constant improvement of a number of innovation lead to the desired quality. The cost of introducing quality systems represent an investment for the future of each company.

Quality catering services that consumers expect a standard by which to assess the quality of the service provided, including the need for and commitment to quality of food and drink is defined on the basis of objective and precisely defined data. If take for basis and reason for going to a restaurant and eating food that gastronomic product generated by different methods of processing various types of food products consisting of several food products integrated The specific properties that unlike other products have food and drinks and have the properties to meet the physiological needs of the human senses have to meet:

1. Technical - technological aspect
2. Microbiological second aspect
3. Health - a safety aspect
4. Nutritional fourth aspect
5. Sensory aspect

- Technical - technological aspect includes properties of raw materials, methods and procedures in the preparation, norms and ways of servicing.

- Area of microbiology aspect indicates to you in the food and drink is greater than the permitted number of micro-organism and the absence pathogenic organism.

- Health - a safety aspect of contamination of food with chemicals (heavy metals, pesticides)
- Nutritional aspect involves the representation of nutrients and the building materials necessary for the normal functioning of a human organism.
- Sensory aspect is evaluating the characteristics of the food with the sense of (one or more) in order to give proper objective results.

Total quality management - TQM

In order to meet the needs and expectations of consumers quality management is constantly evolving in line with the problems in the market. The quality management system is developed through phases.

1. Inspection sacrificing I & T
2. Quality control QC
3. Providing quality QA
4. Full quality control TQQ
5. Management of Total Quality TQM

TQM - as the latest concept of quality management implies the involvement of all actors involved in the creation of products and services, thereby helping level of quality.

In order to apply the concept of TQM is necessary to fulfill certain conditions: (Ljubojević, 2004)

- Greater autonomy and more authority employees
- Engagement - loyalty management
- Quality Corporation
- Statement of the Mission
- Comparative analysis in order to best practices
- Education and training
- The system of compensation
- Communication
- Leadership
- Business Ethics

The main aspect to improve service quality and to decrease the cost of getting steadily in importance. The very fact of increasing competition in the market, contributing to TQM is gaining in importance of applying the concept.. This concept should be imperative for any service company because its application easier to meet and exceed the needs and expectations of consumers.

Under standard means “publicly available document, established by consensus and adopted by a recognized body, in which the general and reusable establishes the rules, requirements, characteristics, instructions, recommendations or guidelines for activities or their results, in order to achieve optimal level of regulation in particular authorities in relation to actual or potential problems, “the standardization of the” set of coordinated activities on the adoption of standards and related documents “

Striving to enable the continuous provision of quality services or products resulting standards. By defining the requirements and characteristics that must be met in order to ensure the same quality of each customer are set standards.

The application of standards in the economy, and therefore in the hospitality industry, has great significance, both for consumers and for entrepreneurs who thus simplify and accelerate the process of business activities, reduce costs and increase profits, enhance the quality of work atmosphere and the service provided.

Their implementation is a complex process consisting of several stages:

- Prescribing standards,
- Application of standards,
- Control of the application of standards,
- Improving standards.
- Education and training of employees,
- Standards are made in the context of the enterprise, the level of professional associations and within the state itself and the division can be made to:
 - The external standard and
 - Internal Standard

States in the form of laws, regulations and other documents regulating the external standard, and they are required in the operations of hotels, restaurants, or the same facilities. External standards can be established at the international level, and commonly encountered in the hospitality sector, in hotel chains or fast food restaurants.

Internal standards in restaurant can occur in two forms:

- Formal and
- informal

and they are reflected in the written and oral rules on how to provide services. Internal standards are more rigorous than the standards set by the state as is the case in the hotel because hotels want to provide the same level of quality to their guests worldwide, while respecting internal standards even though, according to the regulations of each state could operate with smaller investments necessary to implement the standard.

Common to the implementation of standards at the restaurant whether it is on the external or internal standards is:

- standard for the construction of a catering facility,
- the standard of furnishing and equipping the service and manufacturing work,
- the standard of health security landscape of food,
- standard on quality management,
- Standard horizontal and vertical communication,
- standards for dealing with guests
- standards to protect the health of employees and safety at work,
- standards relating to human resources,
- standard for the application of information technology and,
- the standard of environmental protection,

International Organization for Standardization ISO (the International Organization for Standardization) in 1987 published the first international standard of quality. The standards of this organization were created on the basis of international experience in different areas of business and thus provide systematic quality improvement in all companies to implement them in business. In accordance with market trends and scientific achievements, standards are subject to change and is periodically changed and amended.

Acceptance of these standards also means a simpler comparison of the experiences of companies around the world and find a solution for any shortcomings in the work. The absence of barriers and differences in international business, a special contribution for the establishment, maintenance and improvement of quality in the provision of catering services to the global market.

Here are some of the most applied international standards in the hospitality sector. Standards belonging to the ISO 9000 and relate to quality management:

ISO 9000 gives definitions of basic terms, standardization of terms,

ISO 9001 defines the requirements necessary for a quality management system,

ISO 9004, a more efficient and effective quality management,

ISO 9011, guidelines for internal and external control of the quality management system.

ISO 14000, the management of environmental protection,

ISO 22000, the management of food safety,

ISO 26000, the management of social responsibility,

OHSAS 18000, the management of protection and safety at work,

HACCP, Hazard Analysis and Critical Control Point,

Probably the most important part of this standard is HACCP (Hazard Analysis and Critical Control Points). HACCP system practically forms the basis of the ISO 22000 and next to it a certain basis of form and mention the standards of ISO 9000 and ISO 14000 HACCP is a system for the identification, assessment and control of hazards of harmful effects on the health safety of food. The system includes the analysis and control of biological, chemical and physical hazards from raw materials to the end product that serves the consumer . Benefits application of the HACCP system is reflected in the following: (Popov - Rajlić, Blešić, 2012)

- Reduction of disease outbreaks caused by food
- Supply of population health safe food,
- The ability to meet the requirements of legislation and more effective inspection,
- The possibility of more effective and efficient operation food companies,
- Increasing competitiveness in the global market,
- Removing barriers to international trade,
- The possibility of an efficient introduction of new technologies and products,
- Increase profits,
- Contribution to better organization of work,
- Better control of the efficiency of individual workers on the job,
- Gaining the trust of consumers.

In accordance with the legal provisions of the Republic of Serbia, all the economic operators who are in the chain of imports, storage, production, distribution of food raw materials or products, and establishments engaged in further processing of food (prepared dishes) and service, are required to implement HACCP system (Popov - Rajlić, Blešić, 2013). A good feature of this system is the possibility of implementation in all establishments that provide food and beverage services, regardless of type, type or size.

It is especially important to point out that in the world a great deal about the implementation of standards relating to food, and refer to the standards:

- HALAL-standard confirming that the food in accordance with Islamic rules and customs that are allowed for consumption and

- KOSHER-standards that confirm that food products meet the requirements prescribed by Jewish law can consume them members of the Jewish religious community.

The application of these standards is particularly important for restaurants that are located in the multi-ethnic communities, and on the basis of which they can gain a competitive advantage and recognition among consumers. The special quality is achieved by obtaining a certificate from the competent authorities, which guarantees the company's operations according to the principles of standards and quality systems.

Management welcomes guests in restaurants

To manage certain activities, it is necessary at the outset to have a clear idea of which direction we want to go, that is what we want to achieve in the market. On the basis of the target segment and a clear market orientation is necessary to ascertain the wishes, needs and expectations of consumers on the basis of which further define the level of quality to be achieved due to its satisfaction. Business catering companies see consumers as the main target group of which largely depends. Their needs and desires are at the center of marketing research, or in the center of overall business activity.

In order to obtain the necessary information research conducted are imperative in the highly competitive market environment. The collection of more relevant data about consumers - guests will be catering companies bring in a better position to provide better service and thus contribute to greater satisfaction of the customer. From this it follows that the quality management services and guest satisfaction, based on the knowledge of their expectations. Knowing the desire guest significantly facilitates the activities of catering company, primarily service personnel to fulfill these desires. Here you can talk and the provision of personalized services, which certainly affects the perception of the quality of service to the consumer in a positive way on the one hand, and the separation from the competition, on the other hand.

The expectation of consumers is changing due to numerous factors. If the service provided does not meet all expectations, as a result, the dissatisfaction of the guest. Service quality is largely determined by the ability of the service staff to meet expectations - despite the professional staff and the belief that the quality of services provided, if the customer believes that its needs are not met, the perception of the quality of service will not be favorable to the catering company. In contrast, establishments that fail to meet the needs of consumers, will be perceived as those who provide good, and quality service. Therefore, the quality of service depends on the perception of consumers and therefore it is very important to succeed in meeting the expectations of the guest the process of providing catering services: (Galičić, Ivanovic, 2008)

1. Guest wants made to feel welcome,
2. The guest wants to feel free and
3. The guest wants to enjoy.

The same authors, when it comes to potential guests, give the division into two categories:

1. Guests who care about money and
2. Guests looking for quality.

Regardless of which profile guest like catering companies should bear in mind that all consumers expect a certain value for their money. This value is reflected in the quality and safety of health products (food or drink), mode of service, the whole experience and so on.

Recognizing profile guest and his desire plays a key role in the market struggle and the impact on the final perception of quality of service by the customer.

Some of the most common expectations of guests restaurants are:

- Fast and accurate service,
- Quality products,
- Affordable price,
- Friendly staff that is capable of responses to special requirements and
- A high level of hygiene .

Consumer satisfaction reflects their expectations, as well as current and previous experiences that have to do with the product or service. The experience, whether it be about the same or a competitive company, affecting expectations and provide a more complete evaluation of the quality of service. In other words, consumers establish internal standards on the basis of which assess the quality of the provided usluge (Bakic, 2010). If there is no previous experience expectations can be formed on the basis of external information under which are considered recommendations to friends, information from the media, marketing activities and others.

Requirements guests today are significantly altered in comparison with the requirements of a decade or further back in time. Significant changes can be attributed to the dynamic lifestyle, dietary changes, economic situation, health-safe aspect, technological innovation, social trends and others.

The most common requirements of modern guests are:

Peace - this involves the location of the restaurant in a quiet environment, pleasant atmosphere in the restaurant and the absence of noise, but also the physical, health and other risks;

Kindness - from service personnel are expected exquisite courtesy, politeness and willingness to meet;

Kitchen - Food is one of the key elements when it comes to the selection of restaurants. Although there are numerous specialized restaurants, guests have the need to consume foods that are not able to prepare themselves to be made of organic foods that do not contain allergens and the like.

Charm - because the hosts more demanding and particular about, they want to experience the excitement at every turn, and at every stage of consumption catering services. Attach great importance to aesthetics, to the interior of the facility and the food they served. In addition, requiring the charm of staff with whom they are in contact;

Character - includes features that distinguish the restaurant from others. Thus, the customer wants to stay in the restaurant that meets his expectations and the need - for example. that is luxurious, it is very well thought of, that provides a unique experience and the like; All this falls within the ambit of specific demands of modern consumers who influence the perception of the service provided (Galičić, Ivanovic, 2008).

Levels of customer expectations can be different and conditioned by a number of factors. What is important is their future impact on the formation of internal standards within each individual, based on which evaluates the quality of services.

Limits to which guests are ready to accept variations quality of service is called the tolerance zone.

If the service level drops below the minimum acceptability, guests will be dissatisfied, or if the level of service out beyond the zone of tolerance and thereby exceeded expectations, the guests will be very pleased and positively surprised. Also, it can be said that the guests do not register the level of quality of service if he is in the zone of tolerance to such an extent as is the case when the level is found at the lower or upper level. Tolerance zone does not have to be the same for all dimensions of quality - depending on the importance of the guest attaches particular dimensions, zone of tolerance may be completely different.

The desire of every catering company is to meet the expectations of guests as much as possible or to be exceeded. In that endeavor, the company should attempt two things:

- To provide personalized service (keeping records of every guest - what has been sending message, what he likes and what not to eat, the previous problems and the like.)
- Do not give too much promise.

How to identify unmet needs and desires of consumers, enterprises resort to marketing research, but that research was as useful for managers of catering establishment, consumer research should be oriented towards collecting the essential information. Certainly that has been providing the highest possible levels of service quality imperative catering companies, but this leads to an increase in their expectations for the next visit).

Consumer satisfaction and his loyalty

Every company strives towards a goal which is called satisfied customer. It is often the case that in reality consumers are not always, or completely satisfied with the service provided or its quality. This can result in consumers turning to other providers of the same type of services or the formation of loyal users if their needs and desires are met to a greater extent. Customer satisfaction depends on the level of satisfying the needs and desires of consumers or customers in a restaurant. Satisfaction is defined as an opinion arising from the difference between the perception of used services and expectations from it. As factors that largely affect consumer satisfaction, according to perceived quality, awareness of the product or service, value as the ratio of perceived quality and price, previous experience of consumers and others. The quality of the delivered services is not the only determinant that affects consumer satisfaction. Some of the additional determinants are certainly personalized communication and product (service), payment method (eg. A discount for regular customers), unique atmosphere and environment and so on. The aforementioned determinants except that affect satisfaction, it is clear that the causes of discontent and encourage, in turn, enthusiasm service. Certainly it is not possible to fully predict precisely the level of customer satisfaction but should analyze all the influences or factors in order to extract the critical moments in the “delivery” quality and find solutions for its improvement.

Factors causing dissatisfaction in restaurants can be related to unwanted characteristics of the product (cold food, small portions, under-cooked foods, low levels

of hygiene utensils, etc.), But also to ineffective service processes (impolite staff, long waiting time, mistakenly received orders, incorrect billing, etc.). In the absence of these factors, the satisfaction is most often will not increase, but if they are present, the pleasure will certainly be less. Factors that create a sense of satisfaction among consumers are usually expected characteristics of a product or process. Consumer satisfaction is the main determinant in retaining existing customers on the one hand, and attracting new (potential), on the other hand. Since consumer satisfaction hospitality service provided affects future behavior and choice of services, it can be said that satisfaction is directly related to loyalty to a particular catering establishment. Satisfied customers in the current time bring profit catering company, or to the same consumers maintain and create more profit in the future, pleasure or delight must grow in loyalty.

If satisfaction is not high, the consumer can, despite some satisfaction with the services of a company, decide to also use the services of competing companies. Consumer loyalty and also leads to an increase in the number of new customers or guests the restaurant, which will certainly be the best marketing for the restaurant assuming themselves to be satisfied with the service.

Some of the benefits of having a restaurant of loyal guests are: (Barjaktarović, 2013)

- Retention of existing guest
- The emergence of new guests based on the recommendations of loyal guests
- The continuous inflow of funds,
- Reducing the costs of advertising,
- Establishing partnerships catering facility and guests,
- Benefits in the competition, and
- Planning of operations (procurement, etc.)

Consumer satisfaction depends mainly on the benefits obtained by consuming catering services. In some prestigious restaurants and hotels benefit is not only reflected in the consumption of high-quality prepared foods to be friendly staff quickly delivered, but sometimes only in the presence of such objects brings some benefit to consumers (not uncommon that consumers opt for some restaurants just to be seen, or to sit next to celebrities).

Such as used for the restaurant, which benefits the guest acquires due to loyalty restaurant are not negligible and are reflected in:

- guest satisfaction because they return,
- Proven quality of food and drinks,
- Providing faster and better services due to the knowledge of the needs and wishes
- Build trust and security
- Acquisition of benefits for loyalty

Due to significant mutual benefits arising from loyalty, restaurants need to work on establishing a long-term stable and even friendly relations with the guests.

Totally satisfaction creates loyal customers, while increasing the level of satisfaction can achieve continuous improvement of quality of service and therefore it is necessary to constantly monitor levels of consumer satisfaction (Kosar, Raseta, 2005).

- The system of complaints and suggestions;
- Monitoring of customer satisfaction through questionnaires or phone calls;
- With the advent of mysterious consumers or guests and

- By monitoring and analyzing the reasons why some guests stopped to use the services of catering company.

Since customer satisfaction largely conditioned by whether the customer will be loyal to the company, the focus of managers should find quality as a basis that ensures guest satisfaction. Besides the aspects of product quality, special importance in creating satisfaction certainly has helpful staff that is in direct contact with the guests. To its guests satisfied, it is necessary that the employees are happy and motivated to work. No staff among ruled satisfaction during their daily activities, it is not possible to provide quality service and ensure customer satisfaction. If you meet the above conditions, we can expect satisfaction, and due to the existence of continuity and loyalty catering company.

Continuous measurement of customer satisfaction is of great importance for the business of restaurants, since the basis of the results can consider possible shortcomings that affect the level of (dis) satisfaction of the customer and also provide guidance and to cope with competition. The most common tests of guest satisfaction conducted by interviewing guests after gaining experience with the services of a certain restaurant. In addition to the instrument SERVQUAL and DINESERV, restaurants can engage mysterious guests (mystery shoppers) who, after the experience in the restaurant complete the questionnaire and in this way to express satisfaction with the service provided. It is often the case that these specially hired “guests” have special requirements to test and make sure the staff in their professionalism and knowledge. Additional insight into the satisfaction of our guests are appeals, and guest comments. In addition to the book of impressions, modern consumers often share experiences on the internet blogs, social networks or directly on the website of the restaurant, if it is technically enabled. Monitoring these types of reviews of experience in a given competitive or restaurant, provides an excellent basis for directing actions towards improving the quality of services.

Conclusion

Position organization of the market and competition depends on the competitiveness of products. In order for the product and services were more accessible to the consumer organization-systems will need to look at all aspects. All resources must be mobilized to the efficient and effective implementation of defined vision and goals. The quality and control the production process involved in all segments. The analysis which is made restaurants set new goals. Quality management processes within the organization considered in its entirety and coordinated towards the realization of the universal goal - satisfying the consumers fully.

TQM concept in a quality manner allows businesses, regardless of size, to improve production processes, reduce the number of errors, increase performance, in an affirmative way it works on the staff with the aim of competitiveness and profitability. TQM methods and tools effectively show the current status of the organization, monitoring of all parameters, reducing the number of defects, indicating what the problem is and offer concrete solutions for organizations. The use of methods and tools, with real data, represents a powerful tool for troubleshooting and continuous improvement.

Applying TQM employees active participation in the realization of the production process. Managers define plans and activities with a clear message that without comprehensive application quality no successful organization. Implementation of projects is focused on continuous improvement of quality of service and the joint implementation of managers and employees, because only qualified team has a chance to make a quality product and satisfy consumers.

Serbia is quite late with the application of TQM concepts. Businesses are not competitive, products of lower quality, under-skilled workers, production processes obsolete. Foreign companies investing in our country contribute to our companies and workers to accept a new way of doing business and to make sure that no matter where the organization operating the quality is recognizable everywhere and has the only real value for consumers.

The goal of the company is applying the concept to provide a leading market position, recognition, confidence and satisfaction-dense, with a vision of the future and the constant application of quality improvement. Futur organization is hard to imagine without the full implementation of “Total Quality Management”, because the quality is recognized and has become a way of life for consumers.

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Goca D. Jovanović¹
Slavko Božilović²
University UNION Nikola - Tesla, Belgrade

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THE INFLUENCE OF MANAGEMENT OF HUMAN RESOURCES ON MOTIVATION AND JOB SATISFACTION

Abstract

Major changes in recent years have affected the work of the organization. Successful business requires great flexibility, accountability and speed of product development and services. In the heart of the success of the organization, to achieve the mission and vision, lies highly qualified staff that is motivated, loyal and concentrated on achieving the objectives. Motivation is the effect that causes, directs and maintains the desired behavior of people. Human resources are the most creative and driving force of the organization. The level of training for work, working habits, level of responsibility and the quality of the relationship to work, their motivation and creativity depend on the future performance of the organization. Construction quality motivational system can increase the competitive ability and value of the organization. Job satisfaction is related to a positive emotional reaction and attitudes of employees towards their work. Job satisfaction significantly affects the efficiency and effectiveness of employees. This paper presents the results of research and analyzed the impact of human resource management on motivation and job satisfaction in the public sector.

Key words: human resources, motivational factors, theories of motivation, motivation and job satisfaction.

JEL classification: M21, M54

UTICAJ MENADŽMENTA LJUDSKIH RESURSA NA MOTIVACIJU I ZADOVOLJSTVO POSLOM

Apstrakt

Velike promene tokom poslednjih godina uticale su na rad organizacija. Uspešno poslovanje zahteva veliku fleksibilnost, odgovornost i brzinu razvoja proizvoda i usluga. U srcu uspešnosti organizacije, ostvarenja misija i vizija, leži visokokvalifikovano osoblje koje je motivisano, odano i koncentrisano na postizanje ciljeva. Motivacija je uticaj koji izaziva, usmerava i održava željeno ponašanje ljudi. Ljudski resursi predstavljaju najveću pokretačku i stvaralačku snagu organizacije. Od stepena njihove osposobljenosti za rad, razvijenosti radnih navika, nivoa odgovornosti i kvaliteta odnosa prema radu, njihove motivisanosti i kreativnosti zavise buduće performanse organizacije. Izgradnja kvalitetnog motivacijskog sistema može povećati konkurentsku sposobnost i vrednost organizacije. Zadovoljstvo poslom se odnosi na pozitivnu

¹ g.jovanovicbg.@gmail.com

² rektor@unionnikolatesla.edu.rs

emocionalnu reakciju i stavove zaposlenih prema svom poslu. Zadovoljstvo poslom u znatnoj mери utiče na efikasnost i efektivnost rada zaposlenih. U ovom radu izneti su rezultati istraživanja i analiziran uticaj menadžmenta ljudskih resursa na motivaciju i zadovoljstvo poslom u javnom sektoru.

Кључне рећи: *људски ресурси, мотивациони фактори, теорије мотивације, мотивација и задовољство послом.*

Introduction

In today's business, market conditions, everyday technological and economic changes contribute to the economy with new business challenges, which have arisen as a result of a dynamic market environment. An increasing number of organizations achieves a competitive advantage thanks to the quality of human resources. Human resource management is considered a key activity management, whose mission is to provide quality workers, reduce operational costs through effective recruitment, takes account of the needs of employees and manages complete administration regarding the relationship of the organization to employees and their position. "Management of competent people requires constant balance between human aspirations and meeting strategic and financial needs of the business" (Torrington, Hall, Taylor, 2008).

Work motivation proved to be one of the most important prerequisites of work efficiency and achieving the targets of both individuals and the entire organization. Percentage of motivation in organization is directly proportional to the quality of the results achieved and the level of development of the organization. Every manager wants to have a large number of motivated individuals and groups in your organization, which is of great importance in a planned and systematic work to improve the morale and motivation of employees, which in turn largely falls within the scope of work of experts in human resource management (Ђорђевић-Ђолјановић, Павић, 2011, p. 252).

In keeping with the theme of work, we will deal with research and analysis of the impact of human resource management in the public sector employees and the presentation of the decisive factors that influence the motivation and job satisfaction of employees in public institutions in Pancevo. This research highlights all the more topical phenomenon of motivation and its undeniable impact on improving the quality of working life of employees, but also to increase their working engagement. The goal is to determine the level of motivation of employees in the public sector, including analysis of all significant aspects of work motivation and context of the transaction, which would symbolically pointed to a current picture of the general state of satisfaction and a certain way to identify the factors that are the primary source of employee dissatisfaction at work. The scientific objective of this paper is to highlight the importance of the contribution and activities of human resource management as a scientific discipline and business functions to achieve the organization's goals, as well as the motivation of employees to achieve these goals by his conduct, which reflects a good quality business.

The structure of the work, in addition to the introductory part and conclusion, it consists of four parts. In the first part the attention is paid to the factors of motivation to work, or

motivators and demotivators. The second part is a theory of motivation, theory of motivation content and process theories of motivation. In accordance with the present concepts and theories are given concrete examples and guidelines that managers can be useful for initiating and directing the behavior of people at work. In the third part of the paper we emphasized the specifics of motivation, productivity and job satisfaction as individual categories and discuss their mutual interaction. Mutual link these relations is a matter for the analysis of the impact of job satisfaction has on employee motivation, and motivation level of impact on work efficiency. In the third part of the survey is analyzed and interpreted the results of research on the case of the public sector in public institutions in Pancevo, as well as the conclusions that can be drawn from it.

Theories of motivation to work

Theories of motivation can be divided in different ways, but the most famous is the division into two basic groups: the theory of motivational content and process theories of motivation. The theory of motivation emphasize the content needs of the people, and emphasis on the motives that employees strive to achieve in organizations. Theories of motivation process focused on the processes and methods by which managers are encouraged satisfaction among employees.

According to Maslow's theory of needs (Ivancevich, Lorenzi, Skinner, Crosby, 1997), people in the organization runs five primary needs which are hierarchically sorted, so that an individual to meet the needs of more hierarchical be crossed only after satisfying the needs at a lower level. These needs are physiological or existential (needs that each individual has as a biological being - the need for food, water), security needs (the need for the physical and psychological safety - protection against external hazards, health care, protection of personal integrity, pension and social insurance), social needs (need for love and friendship and a sense of belonging), the need for respect and self-esteem (need for respect by others, as well as self-esteem, which derives from each other) and the need for actualization (the need for personal development, self-actualization and realization of all their capabilities, talents and full potential).

Modification of Maslow's theory of motivation represents Alderfer ERG theory (Hellriegel, Jackson, Slocum, 2002) which contains three types of needs that are not listed hierarchically, and they include: basic needs (need for food, air, water, certain benefits and adequate working conditions), the need for connectivity (for the purposes of placing and maintenance good interpersonal relationships with co-workers, superiors, friends and family) and development needs (need for personal development and personal advancement usavršavaljem). His opinion is that when a person satisfying the needs of a higher level, then the person begins to invest double efforts to the needs of lower level.

McClelland's theory (Wright, Noe, 1995) of needs is exclusively focused on work motivation and work behavior explains the importance of individual motives, which is considered fundamental, objective of the awards is a sense of satisfaction and pride. According to this theory, there are three groups of factors that affect the satisfaction of employees in the organization: the need for power (desire for influence and control over the people, as well as over their affairs, activities and tasks), the need for achievement (the tendency of an individual employee or to achieve success in the work place) and the need for the association

(aspirations to friendly relations, cooperation and human relations based on high trust and understanding), (Petković, 2009).

Motivation - hygiene theory, or the theory of two factors, based on factors work in combination with working conditions. Motivation - hygiene approach also represents a modified version of the theory of necessity. Unlike Maslovljevog views and orientation to the needs of people Herzberg is his research (Hellriegel, Jackson, Slocum, 2002) showed that satisfaction and dissatisfaction are not opposite ends of the same continuity, but there are two completely different dimensions: satisfaction in relation to the lack of discontent and dissatisfaction in relation to the lack of satisfaction. In addition, Herzberg's factors influencing satisfaction called motivation, and factors that encourage discontent called hygiene (Pavić, 2011, p. 65).

To understand the theory of two factors, it is important to stress that, in practice, quite understandably, factors affecting the dissatisfaction can not cast you forth, and that their existence in companies inevitable. On the other hand, Herzberg's assertion (Hellriegel, Jackson, Slocum, 2002) that through job enrichment can be achieved by motivating employees was often criticized. It is believed that this view influenced the simplified understanding of the categories of satisfaction and dissatisfaction, which this theory gained a lot of critics, but also supporters. If we accept this theory as valid, then the task manager is primarily related to the provision of organizational conditions and encouraging inner motivator in employees, primarily non-financial forms of remuneration.

Goal-setting theory has defined Edwin A. Locke (Lock, 1968). According to him, motivate employees three mechanisms: a specific and clearly defined objective, InformationLa feedback on the achievement of set goals and employees' participation in setting goals. The goal will motivate the individual or the employee, if clearly defined, if it is harder but if desirable and achievable. If goals are unattainable and too heavy, it can be counterproductive, and it is necessary that the employees themselves participate in defining the objectives, it will be easier to accept and consequently implemented.

The theory of equality or justice (Adams, 1965) is based on the constant comparison of employees with collective. Employees are very important as far as they themselves are rewarded for our work and effort, but they more importantly how many others have been awarded for the same work. When employees realize that there is inequality and to challenge injustice, then comes to the creation of tension, which is a signal for managers to change the work environment and business policies to ensure an equitable relationship among employees. According to this theory, in addition to wages, the factors that are compared are: status at work, physical work conditions, technical equipment of the workplace, employee involvement in decision-making and the like.

Expectancy theory (Vroom, 1964) is based on the assumption that most of the behavior of individuals, organizations and employees in the fruit of their free choice. Expectations Model consists of three important related components: behavior-outcome valence and effort-result. According to this theory, individuals are motivated to understand that there is a favorable combination of what is important for them and what they expect as a reward for the hard work and then behave in an appropriate manner (Čerović, 2013, p. 217-218).

Motivation for work, labor productivity and job satisfaction

People, their needs, motivation, productivity and job satisfaction of becoming the center of attention of human resource management, as it became clear that human capital is the main tool of competitive abilities and strengths in the global market. Motivation can be defined as a set of factors that drive and guide people and encourage them to persevere in their efforts to achieve a specific goal (Villiams, 2011, p.232). People who are committed to the organization in which they work, they are ready to fight for the realization of its goals and feel satisfaction over the progress of the organization (Đorđević-Boljanović, Dražeta, Babić, Dobrijević, 2013, p.253). To operate successfully, every organization needs to find an optimal combination of material and non-material incentives for their employees, which depends on many factors: the sector in which it operates, competition in the labor market, the nature of the transaction structure. Tangible motivation is under the direct influence of the organization, its policies and practices. Immaterial incentives involve employees more active role in taking responsibility for improving operations and powers on major business decisions (Čerović, 2013, p.212). To ensure adequate quality of employees in organizations, it is necessary to offer an adequate level of earnings, which is only a necessary condition, but not sufficient.

If you really want to motivate someone, we have to understand their needs and goals. In the first phase of the motivational process is the formation of motives, or that activities of the employee towards the achievement of a specific goal. In the second phase, these activities produce a certain effect, but in the third there is employee satisfaction effect, as the logical consequence of the effect of certain awards. It is assumed that employee satisfaction effects of their own work, or the award reproduces motive and thus closes the circle, a motivational process starts again (Čerović, 2013, p. 209). Motivational drivers are factors that are essential for the success of the changes, and they are: a clear vision, unified and decisive team implementing changes, education of participants and communication with all those who at various levels should implement changes, or that their resistance can them huts. Motivation in the organization is fostering and causing the will to work and work performance. Active people and their behavior has been encouraged by certain causes and goals that arise as a stimulus to creativity or initiative motives or actions. The motives are psychological factors that drive the activity, direct and maintain activity for achieving the objective that can meet specific needs (Kordić, Pajević, 2007). According to the origin of the motifs are divided into biological and social, according to a source in the external and internal (Mašić, 2010, p. 341). The award is an external motivator that influences the man to re-apply some form of behavior in order to achieve the same effect. Internal motivators are related to the complacency of the performance of certain activities (Mašić, 2009, p. 329). Motivation is closely related to the will and therefore unpredictable. Particularly interesting are the three characteristics of motivation: encouragement, guidance and strength (Mitchell Daniels, 2003). Motivation is influenced by many factors: individual characteristics, job characteristics and the characteristics of the company (Čerović, 2013, p. 207).

Productivity as one of the most important criteria of efficiency of labor depends not only on the established social relations but also on ways of organizing work and business. When productivity in the narrow sense takes only one factor - labor (Barać, Stakić, 2008). By tracking employee productivity organization basically accomplishes two main objectives (Pržulj, 2007, p. 299):

1) Increasing the level of commitment of the employees at work - motivational potential of this process stems from the feedback on the results of the employee (the need for self-realization), as well as the recognition result (the need for respect). In addition, this process can indicate valuable message to employees on how to evaluate and respect their work.

2) Establishing a plan for future development of employees - monitoring and performance evaluation of working allows employees to have a clear idea of what is expected of them and what results were achieved. Individuals wishing to obtain information about their work - which is the basis for obtaining a just reward, job security, professional development and career planning.

To understand the cause - posledničkog relationship of motivation and labor productivity, in terms of organization must be assumed that the motivational component especially important. Specific features of motivation contribute to the shaping of this relationship in a way that suggests that productivity as a goal depends on the motivation of such funds. This means that when productivity increases, it is expected to grow and motivation, because motivation is followed by productivity or productivity precedes motivation.

In many of our organizations, there is no continuous measurement of motivation and employee satisfaction. Measuring motivation is possible by using three basic techniques: interviewing workers, evaluating the behavior of workers and performance measurement (Ćerović, 2013, p. 213). The motivation for the work is related to the topic of job satisfaction, job satisfaction also has been associated with creativity, and enhancing motivation and promotes creativity, the creative energy assessments that give pleasure and joy of life. Creativity and satisfaction are related aspects of labor (Jovičević, 2010).

The problem of motivation and employee satisfaction becomes particularly significant in terms of the current transitional changes. The upcoming market transformation organizations require secure the achievement of a number of preconditions, among which the important place occupied by the establishment of the new system of motivating employees, based on continuous measurements to customer satisfaction, and motivation of employees. Measuring employee satisfaction is an unavoidable part of the process of organizational management for positioning the organization as a whole and its organizational units that work in strategic analysis and strategic choices. Under employee satisfaction involves a subjective assessment of the degree of satisfaction arising from the assessment of personal satisfaction with various aspects of their loyalty to the organization. Employee satisfaction primarily relates to the perception of employees and the degree to which they met their motives, a first motives which are seen as important for their engagement. Understanding employee satisfaction is essential for a more complete understanding of the effects of variations of incentives and motivation of employees, particularly if they are relevant to employee satisfaction. Measuring employee satisfaction should always be accompanied by measurement of employee motivation. These two systems of measurement are performed simultaneously. We should bear in mind the basic assumption that the motivation is always at the center of employee satisfaction.

Research methodology

Human resource management has long been an important link in modern business. The basis of quality labor organizations are employed. Employee satisfaction has a huge

impact on their results, as well as the success of the organization. For a successful business requires analysis of business, human resource planning, recruitment and selection, training and development of employee skills, career development, promotion, rewarding and motivating employees.

The subject of the research is to describe the impact of human resource management in the public sector employees and see the decisive factors that influence the motivation and job satisfaction of employees in public institutions in Pancevo.

The research in this paper provides answers to the following questions:

- How many employees are satisfied with cooperation with their colleagues at work and interpersonal relationships?
- Have employees participate in some segments as a team to achieve mutual outcomes and improving the quality of business?
- The extent to which employees are satisfied with working space in the service?
- Do staff have the necessary equipment and materials for the proper and timely performance of work?
- Are employees satisfied with monthly income?
- Do employees believe that salaries should be higher taking into account the work they do?
- Are employees satisfied with regular cash income?
- Are staff in the past month received verbal recognition for a job well done?
- Are employees rewarded financially during the year for a successful job?
- Do staff have the chance to advance in the coming year?
- How many employees are satisfied with investment in professional training (professional meetings, postgraduate studies, foreign languages) for successful work in the organization?
- How satisfied are opportunities to put your ideas about improving the quality of work put forth superiors?
- Do staff have a sense of job security in the current workplace?
- Would you change your job, or from the public sector to the private proceed?
- Are public sector employees motivated and satisfied with the work they perform?

This research can help to give a true picture of business in the public sector and to emphasize the importance of the contribution and activities of human resource management as a scientific discipline and business functions to achieve the organization's goals, as well as the motivation of employees to achieve these goals by his conduct, which is reflected in good and quality work. The importance of the research is realized in the reflection of the current state of employee satisfaction, while the results suggest that indicators need to be improved for better functioning of the public sector, providing quality products and services.

Survey instruments

The survey was conducted from 15 march to 20 june 2016 in the public sector, in public institutions in Pancevo. Participation of employees in the survey was voluntary and anonymous, which is fully secured protection of personal data on employees. For the study used a structured questionnaire, designed so that the first questions relating to demographics,

followed by studied categories of employee satisfaction, which are organized as sets of assertions. Questions are closed, and the respondents were able to express their agreement or disagreement with respect to the given claims. The survey consists of 15 questions. Questions were ranked marks from 1 to 5, where 1 means completely disagree, 2 disagree, 3 am indecisive, 4- agree, a 5- completely agree. The survey is tailored case studies and indicators included in the assessment of pleasure at work are: the satisfaction of material income, reward system, relations with co-workers, promotion, personal development, job security and overall satisfaction. The data is subsequently processed and analyzed as follows: the application of statistical techniques with numerical indicators, interpretation of results, putting emphasis on incentives within which there is a significant difference between the degree of their importance and satisfaction. All of this will make sense when we know that the best use of the obtained information, information about job satisfaction, and how to bring them under the most correct decision.

Analysis of survey research staff with discussion

The study included 100 respondents employed in the public sector during the period from 15 march to 20 june 2016. in public institutions in Pancevo. Given the fact that the public sector is closed in terms of wages, thinking about your position at work and other elements that contained a questionnaire, was the only way to get results. It was found that the employees have the following general characteristics:

- Gender structure of employees - from a total of 100 respondents was fortified to make the 43 respondents, or 43% of males and 57 form the respondents, or 57% of the female gender.

- Structure of employees by age - to determine the age structure were determined intervals respondents: 30 years, 30 to 50 years and for over 50 years. On the basis of the research, it can be stated that in the public sector most represented age group over 50 years, which the 59 respondents, or 59%, followed by the age group of 30 to 50 years, which the 39 respondents, or 39% of the age group to 30 years, which the two respondents, or 2%.

- Employee-structures based on qualifications - examination it was determined that the largest group consists of employees with VII level of education, ie university graduates, 53 of them, or 53%. Employees with VI level of education has a 9 or 9%, while employees with IV level of education has a 38 or 38%.

- Employment structure by years of service - to determine the structure of the employees are determined intervals of service - category up to 5 years, from 5 to 10 years, from 11 to 20 years and over 20 years. On the basis of the research, it can be stated that in the public sector, the most common category of over 20 years of service, which the 45 respondents, or 45%, then the category of 11 to 20 years, which the 37 respondents, or 37%, while the category of 5 to 10 years belonging to 16 patients, or 16%, and the category of up to 5 years of service belonging to two respondents, or 2%.

In the text below we analyze the questions contained in the survey response rates and comments received from respondents.

1. To the question: “How much are you satisfied with the cooperation with colleagues at work and interpersonal relationships?”, Most of them responded that they are satisfied - 67

respondents, or 67%, while 33 of them, or 33%, said they were dissatisfied. Based on these results it can be concluded that employees are satisfied with cooperation with their colleagues at work and interpersonal relationships, which creates a positive working atmosphere, an atmosphere of teamwork and positive impact on the work of the entire public sector.

2. To the question: “Did you participate in some segments as a team to achieve mutual outcomes and improving the quality of business?” Most answered that they participate in teamwork in order to achieve joint results - 53 respondents, or 53%, while 37 of them, or 37%, responded to the contrary. Based on these results, we can conclude that the majority of respondents satisfied with participation in teamwork to achieve common results, which creates a positive working atmosphere and has a great impact on the quality of products and services of the public sector.

3. To the question: “To what extent are you satisfied with the working space in the service?”, Most of them responded that they are satisfied - 59 respondents, or 59%, while 35 of them, or 35%, responded neither unhappy nor dissatisfied, and 6 patients and 6% said they were dissatisfied. Based on these results, it can be concluded that employees are satisfied with working in the service area, which creates a positive working atmosphere and positive impact on the work of the entire public sector.

4. To the question: “Do you have the necessary equipment and materials for the proper and timely performance of work?”, The majority of respondents, 83%, or 83, said they have all the necessary equipment and materials for the proper and timely performance of work at the workplace, while 17 respondents or 17% said the opposite - it does not have all the necessary equipment and materials for successful job performance. This can be a very important factor for the work and productivity of employees, as 17% or 17 respondents, or thinks he does not have all the necessary equipment and materials for activities and jobs, which can be the cause of their dissatisfaction and lack of motivation to do their jobs. For the public sector the prevailing opinion is that all workplaces equipped to a large extent, and even excessive for the performance of certain business activities. However, in the public sector there are a large number of jobs related to the direct production of goods and services, as well as the jobs of maintenance of electrical installations, telefenskih and Internet installation. If employees at these workplaces have all the necessary equipment, it will extremely affect their productivity and satisfaction with the performance of a specific task.

5. To the question: “Are you satisfied with monthly income?”, Most of them responded that they are satisfied - 56 respondents, or 56%, while 44 of them, or 44%, said they were dissatisfied. This result breaks the prejudice about that in the public sector, high salaries, because there are parts of the public sector such as education, health and police, where wages are below the national average. It could be said that more than half of employees are satisfied with their salary because it is above the national average. The results can be interpreted in such a way that even the average wage does not provide a normal and peaceful life, but employees constantly strive to increase their wages. Wages in the public sector are certainly not as much as would employees want, but they are above the national average. However, the fact that wages are above the national average does not mean that employees should be satisfied. This result can be viewed from different angles, with respect to that salary is not the only motivating factor for employees. From the standpoint of human recourses, this result can be interpreted as problematic in motivating employees, but due to the constant tendency of employees to higher earnings, this is not the key factor of motivation for employees in the public sector.

6. To the question: “Do you believe that salaries should be higher taking into account the work you do?”, The majority of respondents, 78, or 78%, responded that they thought should have higher wages due to work performing, while 22 of them, or 22%, responded to the contrary. This large number of public sector employees who feel that they deserve a higher salary can be interpreted from different perspectives. First of all, there is a tendency for people to make more money, but it is very important and the general economic situation in the society, which is characterized by usually low salaries. So that even though 78% of employees are satisfied with the salary he receives, some employees considered that deserves greater. This indicator is for the management of human resources is more important than the previous question, given that more points to dissatisfaction of employees earnings, or the perception of the amount of earnings in relation to the weight and volume of work they do. On the other hand, only 22% of respondents believe that their salaries should not be increased due to the work they do, so it can be assumed that the employed with relatively high incomes for our economic circumstances or on employees who actually perceive the weight of your work and the amount of their salary and have a realistic comparison of their salaries and their work with the salaries of other employees who perform other tasks they probably considered more difficult and complex.

7. To the question: “Are you satisfied with regularity plate?”, The majority of respondents, 97, or 97% responded positively, while 3% of them, or 3 respondents answered negatively. Given the fact that wages in the public sector has long been regular, the fact that the majority of employees satisfied with regularity of payment of wages is not at all surprising. If the employees in the public sector is one of the most important factors of motivation regular payments of salaries, then this is a great result for human resources, due to the fact that one of the main factors influencing the motivation of staff met to the fullest extent, and that for the sake of increasing motivation employees should turn to other factors that influence to ensure that employees are motivated.

8. To the question: “Are you in the past month received verbal recognition for a job well done?”, The majority of respondents, 56, or 56%, declared that in the last month received a verbal commendation for a job well done, while 44 respondents or 44%, did not receive a verbal praise for a job well done. Given that, on the basis of the results obtained, the same number of respondents received a verbal recognition, it can be concluded that it is not enough when the motivation of the employees concerned. As it is known, is one of the most important factors of motivation did praise the master to successfully perform the job.

9. To the question: “Are you financially rewarded during the year for a successful job?”, 29 respondents or 29% said yes, while 71 respondents, or 71% gave a negative answer. As it is desirable from the standpoint of motivation of employees, more employees should receive verbal praise for successfully carried out a job, but more importantly in this day and age that their work be successful and financially evaluated. The more employees being rewarded, it will be higher employee satisfaction. The best way for everybody to be satisfied is that the whole process of awarding cash prizes and bonuses, and possibly also the evaluation, to be as transparent and accessible to all employees, which will prevent employee dissatisfaction.

10. To the question: “Did you have a chance to advance in the next year?”, 29 respondents or 29% said they expected a chance to advance in the coming year, while 49 respondents or 49% said they do not expect promotion in the coming year. The answer “do not know” gave 22 respondents, or 22%. Given the fact that the possibility of promotion is an important factor of motivation of employees, as well as concern may be taken obtained

information that nearly half of employees do not expect any opportunity for advancement, and even 22% of respondents do not know whether you will get any chance. The task of human resources in the public sector is to examine why such a small number compared to all employees expected to have a chance for advancement, as well as to investigate why 22% of employees do not expect or does not know whether it will get that chance.

11. To the question: “How satisfied are you investing in professional training (professional meetings, postgraduate studies, foreign languages) for successful work in the organization?”, The majority of respondents, 52, or 52%, responded that they were satisfied, 32 respondents or 32 % responded that they were dissatisfied, while 16 respondents or 16% said they were not satisfied nor dissatisfied. Based on these results, it can be concluded that employees in the public sector are satisfied by investing in professional training.

12. To the question: “How satisfied are you with the conditions and possibilities to put your ideas about improving the quality of work bring up superiors?” Most respondents answered they were satisfied, 48 of them, or 48%, 32 respondents or 32% said they were dissatisfied, while 20 respondents or 20% said they were neither satisfied nor dissatisfied. Based on these results, it can be concluded that employees in the public sector that pleased with their ideas about improving the quality of work put forth superiors.

13. To the question: “Do you have a sense of job security in the current job?”, The majority of respondents, 45, or 45%, pleaded feel confident about their current job, while 35 respondents or 35% responded that their job is not considered safe, while 20 respondents or 20% said they did not know whether their workplace is safe, or that they do not know whether to consider it safe or not. Based on these results, we can conclude that there has been a significant change, given that the earlier the public sector went into retirement, but today this is not the case. In this case, fear of job works on motivating employees, because in order to keep their job and position, must strive to work more productively.

14. To the question: “Would you change your job, or from the public sector to the private proceed?”, The majority of respondents, 46, or 46%, responded that certainly would not have changed jobs and moved to the private sector, followed by 42 respondents, or 42 % responded that under certain conditions may be moved from the public to the private sector, while 22 respondents, or 22%, is not at all sure whether they would change jobs and under what conditions. It is this balance in the answers on the transition from the public to the private sector gives a picture of human resource management that neither the public sector is no longer the most desirable place to work and motivational factors should be given great attention, in some cases because of dissatisfaction would not have been a significant transition highest quality employees from the public to the private sector, which would decreased the quality of products and services that the public sector provides.

15. To the question: “Are public sector employees motivated and happy with the work that they carry out?”, The majority of respondents, 59, or 59%, responded that they were satisfied, 32 respondents or 32% said they were dissatisfied, while 9 respondents, or 9%, reported that they are neither satisfied nor dissatisfied. Based on these results, it can be concluded that the public sector employees motivated and satisfied with the job they do, which creates a positive working atmosphere, an atmosphere of teamwork and a positive effect on the operation of the entire public sector.

Conclusion

Modern public sector does business in more complex terms, conditions which forced him to continually reviewing and improving its business policy. Public institutions must be prepared to effectively respond to new requirements arising in the market, but also to effectively cope with all the dangers that are present every day. It can be concluded that human resource management as a scientific discipline and the business function has a specific task in the public sector to establish a balance between the objectives and the needs of employees and the goals and needs of individual authorities and institutions in the public sector. The quality of public services is increasingly dependent on competencies of employees who implement the core activity. Therefore, the position of human resources required to develop new policies to recruit and retain the necessary skills for public service with high efficiency. In order to adapt human resources to current and future needs of the public institutions in Pancevo, it is necessary continuing education of employees.

Incentives and motivation theories have a strong role in motivating employees to achieve their own and organizational goals. For public sector employees as a motivation factor most affecting the regularity of income and career prospects. Regularity of income is the most important factor of motivation, a great impact recorded the opportunity for advancement. In contrast, studies have shown that employees are not motivated so much job security, at least not the majority of employees in the public sector. Based on the research results, the employees are properly motivated to perform duties and tasks. Public sector employees have completed all the tangible and intangible prerequisites for successful work and provide quality products and services, from the regularity and level of income through promotion, through oral and cash awards for successful work. This makes them motivated to perform their duties well and what better way to raise the reputation of the public sector. The public sector is increasingly used modern techniques and human resource management policies to employees prepared and successfully motivated to do the job.

Contemporary public institutions develop fully in line with how much to invest in their employees and how to inspire. Therefore, it is especially important to the proper motivation, the introduction and use of a motivator in the workplace and with good personal communication at all levels to improve performance and productivity. The basic recommendation is to keep the good results in the areas in which it was noted that the employees are satisfied. However, at the same time be effective to work on improving results in areas where it was shown that there is a possibility for improvement. In order to encourage full engagement of employees, it is necessary to determine the true ways of their motivation and interest in work and more successful business. Investment in human resources and the motivation to work is justified by the cost of which is still more than repaid. Weather front of us increasingly expanding range of knowledge necessary for successful use of resources, the fundamental conditions for a successful business.

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Ryszard Szewczyk¹
*Andrzej Frycz Modrzewski Krakow University,
Krakow, Poland*

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CERTAIN FLAWS OF GERARD DEBREU'S THEORY OF VALUE AND IT'S IMPLICATIONS²

Abstract

Since its advent in 1959 the theory of value formulated by Gerard Debreu in his work titled "Theory of Value. An Axiomatic Analysis of Economic Equilibrium", that gave him the Prize of the Bank of Sweden in Economics in 1983, mathematical economics which pretends to be considered the purest of scientific theories of economic equilibrium, gained a new incentive to expand. The aim of the article is to demonstrate some weak points of the Debreu model which allow to challenge its economic validity due to misinterpreting the economic content of variables used in his model of economy. After a critical analysis of inconsistencies of the arguments and of semantic errors of the applied terms, conclusions concerning the theory of equilibrium are presented.

Key words: service, commodity, Gerard Debreu, theory of economic equilibrium

JEL classification: E50, E52.

НЕКОЛИКО НЕДОСТАКА ТЕОРИЈЕ ВРЕДНОСТИ ЖЕРАРА ДЕБРЕА И ЊИХОВЕ ИМПЛИКАЦИЈЕ

Апстракт

Од појава теорије вредности 1959. у раду Жерара Дебреа под насловом „Теорија вредности: аксиоматска анализа економске равнотеже“, који му је донела награду Шведске банке за економију 1983., математичка економија, која претендује да се сматра најчистијом научном теоријом економске равнотеже, добила је нови подстицај за ширење. Циљ овог рада је да покаже неке недостатке модела Дебреовог који омогућавају да се оспори његова економска валидност, због погрешног тумачења економског садржаја варијабли које се користе у Дебреовом моделу економије. Након критичке анализе неконзистентности аргумената и семантичких грешака које се тичу коришћених термина, презентовани су закључци о теорије економске равнотеже.

Кључне речи: услуге, роба, Жерар Дебре, теорија економске равнотеже.

¹ ryszardszewczyk@gmail.com

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Introduction

No commodity can emerge until a man makes an item or an action useful to somebody. Therefore, if a good or a service is offered in the market, there must be a producer of the good or a person who renders the service. In both cases we are facing a person who is to be called producer of the commodity. Commodities can only be a *result of producers' actions*.

Consumption of goods is an *ultimate end* of all economic processes. In the narrow sense consumption means a single *act* of using goods created in the production process in order to meet human needs and wants. In wider sense the term means a *process* of using an item for a certain period of time. Regardless of the scope of the term, there can be no doubt, however, that *no product may result from the process of consumption*; consumption is the *final end* of consumers' actions.

Definitions of terms used in the Debreu model

Out of the complete set of definitions, explanations and axioms as well as limitations which constitute the formal model of economy created by Debreu, only few are needed for our considerations. We use quotations in order to avoid possible misinterpretation (*italics original*).

“The first example of an economic *service* will be human labor. Its description is that of the task performed; thus one has the labor of a coal miner, of a truck driver, of a member of some category of teachers, of engineers, of draftsmen, of executives, etc. (all including any further specification necessary for a complete description). When one adds date and location one has again a well-defined *commodity*.” (Debreu, 1987, p.31)

“(…) a commodity is a good or a service completely specified physically, temporally, and spatially. (...) For any economic *agent* a complete plan of action (made now for the whole future), or more briefly an *action*, is a specification for each commodity of the quantity that he will make available or that will be made available to him, i.e., a complete listing of the quantities of his inputs and of his outputs. With one of the sign conventions of [subchapter] 2.3 an action is therefore represented by point *a* of *R'*.” (ibidem, p. 32)

“In the study of production, when one abstracts from legal forms of organization (...) and types of activity (Agriculture, Mining, Construction, Manufacturing, Transportation, Services,...) one obtains the concept of a *producer*, i.e., an economic agent whose role is to choose (and carry out) a production plan.” (ibidem, p.37)

“Given a price system *p*, the *j*th producer chooses his production in his production set Y_j so as to maximize his profit. The resulting action is called an equilibrium production of the *j*th producer relative to *p*.” (ibidem, p. 43).

Analyzing the terms

Despite numerous examples given by the Author in order to precisely explain the meaning of the terms used, neither the definition of the *producer* nor this of the *commodity* quoted above is clear. Although we know that commodities are all possible goods and all possible services, including labor services, well specified physically, temporally and spatially, we cannot be sure whose action is the source of the commodities and thus cannot unambiguously distinguish between a producer and a consumer as *economic* entities.

What we only know from the Debreu's definition is that *producer* is *an agent who chooses and implements a production plan*, where some commodities become inputs of the plan, and the others – outputs of the plan, with his end being profit maximization. Inputs are here represented by negative numbers whereas outputs – by positive numbers. Certain subjective and objective restrictions of the model are also discussed, but the Author avoids unambiguously labeling the result of actions undertaken by producers. Such a clear statement, that *commodities are the result of producers' action*, has never been declared. The reason becomes not clear until we get deeper into the definition and axioms concerning the term *consumer* and the nature of his activities.

Alike producer, the second economic agent, a *consumer*, is defined by the *role* he plays in the Debreu's economy. It may be a person or a group of people, i.e. a household, a corporate or any entity pursuing common aims. His role is to select and carry out such a consumption plan from the set of a priori possibly plans which best fits his preferences. There are also inputs of the consumption plans, that are represented this time by positive numbers, and the only one element of output, labeled as '*various kinds of labor performed*' represented by negative number. Again, however, the Author avoids unambiguously expressing what the inputs and outputs are. He writes: "Typically, the inputs of a consumption plan are various goods and services (related to food, clothing, housing, ..., dated and located), its only outputs are various kinds of labor performed (dated and located) (Debreu 1987, p. 51)."

There is of course no doubt that the inputs of each consumption plan are commodities (goods and services), but a fact, that Author has labeled the only element of output of all consumption plans as '*various types of labor performed*' proofs that he wanted to avoid using here the unambiguous defined term '*labor service*'. The reason is that he previously counted human labor among services, and services – among commodities. In the place under discussion, however, the term '*labor service*' did not really suit him.

Otherwise at least two serious problems would arise at once. Let us then consider them carefully.

The first problem concerns the meaning of the term *output*. Let us quote the original definition (Debreu 1987, p.30, italics original): "What is made available *to* an economic agent is called an *input* for him, what is made available *by* an economic agent is an *output* for him." The definition repeats only what everybody means while using the term *output*; it is *a result of a process*, which – eventually – may be made available to others. Conform to the definition then *various types of labor performed* which are made available *to* producers must be regarded as *a result of a process of consumption*. It should be interpreted then, that *consumption is the means* that makes people able to reach their *final end* which is *labor services* rendered to producers – conclusion that seems hardly to be defended.

More important, however, seems the second problem. If ‘*various types of labor performed*’ in a consumption plan were unambiguously labeled *labor services* and thus counted as *commodities*, then the question would arise as to why had providers of the commodities been not treated the same way as all other service providers classified in the Debreu economy to producers. Such a question becomes legitimate the more so that all services have been unconditionally counted as commodities, regardless the kind of entity who makes them available to buyers. Therefore, if every well-defined labor service was regarded as a commodity (as it really is), then all specific labor services should be always treated as an *output of the production plan* of the entity who renders the service, and – consequently – *all employees should be counted among producers*. Such conclusions, however, would undermine the theory built by Debreu. That is probably why he had chosen to get around the problems the way he did it.

In such a way, however, the Author did not manage to avoid falling into another trap. The trap constitutes the lack of possibility to distinguish *labor services* rendered by economic entities counted by him among producers from ‘*various kinds of labor*’ made available to others by consumers. Indeed, one could hardly discover for example a difference between mowing a lawn in a production factory or doing bookkeeping respectively by workers of the factory and the same activities performed and made available to the producer by one-men cleaning company vs. one-man accounting services firm. In either case the service is rendered by a person, brings the same result and counts as input, i.e. cost, of the production plan of this producer. Despite this, we face in the Debreu economy in the first case consumers whose services are treated as *outputs of consumption plans* of those persons, while in the second case the services become *outputs of production plans* of those persons respectively, since they are counted as producers this time. Due to the lack of criterion, decides the will of an arbiter. Such examples could be listed endlessly, with consequences discussed below.

Only the will of Debreu then decided that all but one services are a result of *a process of production* and thus belong to commodities, with the one being a result of a process of consumption, which thus belongs to ...what? Is there any product of consumption process that might be made available to somebody else?

There is also next reason to undermine relevance of the Debreu’s theory. As soon as we start considering production plans, we find that all services, without any exception, are treated by the Author as commodities, since each of them is represented in the model by a point in the commodity space R^l , in which both production and consumption plans are chosen and carried out by economic entities of the model (Debreu 1987, p. 32). It is confirmed once more, when the Author writes (Debreu 1987, p. 38): “Generally, inputs and outputs together contain only a relatively *small number of commodities*, in other words most coordinates of y_j are null; this corresponds to the fact that Y_j is, in general, contained in a coordinate subspace of R^l with a relatively small number of dimensions.” No doubt therefore may arise that also ‘*various kinds of labor performed*’ belong to commodities. Despite this as long as consumption plans are considered, labor services as an output of consumers’ actions do not count among commodities (they are labeled ‘*various kinds of labor performed*’), but as soon as we go on to production plans, they become commodities. We face thus rather strange situation where something is and at the same time is not what it is, and it depends only on the point of view of a theorist. This is thus another sign that there is something wrong with the system of Debreu’s economy.

I do not know whether and to what extent Debreu was aware of the problems discussed so far, but three features of terms (variables) used in his theory of value remain indisputable; contradiction with logic, arbitrariness of classification used by him in his model of economy, and the loose connection of the variables with their economic content.

Attempt to interpret the model

Seeking to clarify the growing doubt we reach the place in his work where Debreu explains the duality of roles an economic agent can play in the system. He uses there an example of a person who buys a house, a car, etc. for his own needs. According to the explanation such person should be treated as a producer, who buys that house, that car, etc. in order to sell its services to himself as a consumer (Debreu 1987, p. 51).

Letting aside the issue of common sense, which forces to ask how would then look the problem of profit maximization of such a ‘producer’, let us try to apply the same approach to consumers who work for a living, and to consider their actions from such dual perspective; as producers of their services, who sell them to other producers, with well-defined production plans from the one side, and as consumers with their well-defined consumption plans, from the other. If it really worked, doubts could be dispelled. We will do it considering an example like Debreu did it. Let our consumer-producer be for example a turner, who works as a regular employee with a lathe in a manufacturing company.

Our turner *as a producer* of turning services would carry out his production plan where quantities of inputs of the plan (conform to the convention with the negative sign) would be his outlays on what he needs in the role he plays, and the sole output of the plan (with a positive sign) – a well-defined turning service, dated and located. From the other side, while playing the role of the *consumer* our turner would carry out his consumption plan, in which inputs (with positive signs) would be goods and services necessary for him to live, and the sole output (with the negative sign) would be his labor services on the lathe.

Could our turner be regarded as a producer of turning services sold to his actual employer? The answer might be positive on the condition that we correctly specify the coordinates (inputs and outputs) of the vector of his production plan. We already know that the only element of output in this case would be a well-defined turning service (dated and located). The question is, however, what would an input of his production plan consist of, or – to use the normal language of economics – what could be counted as his production outlays?

None of consumption goods could be counted here, despite the fact that at least some of them – let’s call them food in general – provide our turner with energy required for the ‘production’ of turning services. The reason is that – in line with convention of the Debreu theory – they have to appear as inputs in our turner’s consumption plan. Putting them also in the production plan would cause a double counting of the same goods, what cannot be taken into account.

It is also not possible that the production plan of our turner had a positive output coordinate, in our case a value of turning service, and all coordinates of inputs were equal zero, because it stays in contradiction with the assumption of the *impossibility of*

free production (Debreu, 1987, p. 40). Each of cases considered thus far evidence then that our turner *cannot be treated from the dual perspective*; as a producer of turning services and a consumer at the same time.

Taking this into account we have to consider only one more case of treating economic entity from the dual perspective similar to this proposed by the Author (Debreu, 1987, p. 51), when a person buys a house to sell housing services to himself. Let us consider then what would happen if we assumed that our turner-producer buys the turning service from himself as a consumer to sell it to the factory where he works. In such a case, however, there is no doubt that this would be *the same service* that had to be counted once with negative sign as an input of the production plan of the turner-as-the-producer, and once with positive sign, as an output of the consumption plan of the turner-as-the-consumer; its value would thus cancel out to zero, and the whole procedure of treating the turner from the dual perspective would have not any sense.

The cases analyzed above prove that the dual perspective of treating economic agents in the model of Debreu economy may not be applied to employees selling labor services. Such a perspective is there permitted by Debreu only to those consumers who buy *tangible goods* like houses, cars, etc. in order to sell ‘services’ of the goods *to themselves*. Let common sense of the approach be still aside.

Objections to the model

Despite our efforts to find such interpretation within the assumed axioms of the Debreu economy that could be accepted without falling into contradiction with the rules of logic, doubts concerning the nature of labor services in the system did not dissipate. We have to conclude therefore that the model assumes implicitly two types of services. First of them are services rendered by producers to other producers. They fully conform to the axioms assumed for commodities in the Debreu economy, and so they are treated there. The second type of services are those rendered to producers by consumers. Despite the fact that their economic content does not differ at all from the former ones, they are not treated in the model as commodities like all other results of people’s activities, but – against all logic – as a result of the process of consumption. Nevertheless, they become commodities as soon as they enter as inputs into production plans.

It has to be stated then, that we face a dual perspective in treating economic agents twice in the Debreu economy. Once, declared explicitly vis-à-vis some consumers, and once – implicitly for one specific type of commodities, namely for labor services. In some cases labor services are counted as commodities, and in the others – not. The most important, however, is that decision of whether or not such a dual perspective is allowed depends not on any objective features of the service but only on *arbitrary decision* of an external subject who includes it either in the one or in the other *set* of services. Assessing it from purely formal side, the division of services made in such a way does not meet any of the three logical rules of correctness, i.e. *condition of explicitness*, *condition of mutual exclusivity* and *condition of exhaustiveness*. For these reasons, it cannot be considered as proper and consistent.

There is also another argument that calls for the fallacy of the Debreu economic model – the fact that the system allows *free manipulation* with the results. As already

mentioned above, the model allows a dual perspective of treatment of economic entities, once as producers who buy houses, cars, etc. in order to sell their services, and at the same time as consumers who buy those services from themselves. Debreu mentioned only houses and cars *as examples* of such a dual treatment, without considering possible effects of such approach. However, conform to the model, every case of treating an *additional* entity in such a dual perspective causes – *ceteris paribus* – a growth of *total production* of that economy *by the net worth* of the account of this entity. This raises the logically legitimate question: why should such a dual treatment of entities be limited only to consumers of durables like cars, houses, etc.? Bringing it to the absurd, we could extend it – in line with the model – to toothbrushes, pots, shoelaces and any other items that people could buy as producers in order to sell the ‘services’ of these items to themselves as consumers. Who and where will put a borderline? And why there if indicators of economic efficiency could be improved in such a way?

Beyond the model

It is not only economic flaws that contains the model of Debreu. There are also some interesting findings in it. The most important, and very relevant to economic theory is the definition of commodity. Let us quote it again (Debreu 1987, p. 32): “A commodity is a good or a service completely specified physically, temporally and spatially.” It is not only physical features of goods and services, but also place and time they are made available to buyers that make different commodities. The last two features cause that the same good offered at another place and/or time makes different commodities. This can be a strong argument among other things against Marxian ideology.

Despite his efforts Debreu did not also succeed to evidence that different kinds of human labor can be separated from labor services. However if we reject classical approach that people sell their *labor* to their employers, and if we accept that what is sold in such cases are different *labor services* i.e. well defined commodities, specified physically, temporally and spatially, things start looking different way. We get then a system where there is indeed only *one type* of economic agents *independent on each other*. The agents are *people* who play the role of *producers of commodities* in order to take part in market transactions. Some of them make and sell *goods*, the others – all possible kinds of *services*, specific labor services included. All those agents do what they do in order to reach *their own end*, common to all of them. *The end is satisfying their needs with goods and services obtained through the market exchange*.

Exactly due to the fact that there are only independent people in the real economy who offer on the market their own commodities (goods and services) to each other in order to satisfy their needs, there is no point in searching for a *state of equilibrium* in the sense given to the term in classical economics, i.e. the state in which value of final goods produced in a given period is equal to incomes of the so-called production factors involved in this process. This is proven indirectly by the inconsistency of the Debreu model of economy which has been evidenced in this paper. If Debreu had followed consequently his definition of commodity, he might have come to conclusions mentioned above.

In such circumstances there is only one state of equilibrium possible and always present; a state in which a value of goods and services sold by their producers within

some period is exactly equal to the value of goods and services purchased in the same period by their customers – the other producers. It is a Say's equilibrium.

Conclusion

It is reasonable, therefore, to ask the question as to what actually proved Debreu in his Theory of value? We get the right answer only if we stop penetrating *economic content* and meaning of the axioms of the system, that is if we focus only on the syntax and formalisms of the so-called Debreu economy. Then we observe what cannot be seen when looking for the content, i.e. when semantics comes into consideration.

Looking at the Debreu economy system from the purely formal side and *disregarding all conditions and economic interpretations*, we can see that at the beginning we face two *independent* of each other classes (sets) of sets of coordinates of points belonging to the space R . Sets belonging to the first class, the set x , are marked with the index $i = 1, \dots, m$, it is therefore the set x of sets x_i . And those sets that belong to the second class, the set y , are marked with the index $j = 1, \dots, n$; We then get the set y of sets y_j .

Assumptions prescribe that each point x_i of the space R had a number of positive co-ordinates and some non-positive. Another assumptions restrict vectors of co-ordinates of any point y_j ; there cannot be positive co-ordinates, if there is not at least one negative. Each of the points x_i found itself in the set x because out of all possible sets marked with the same index (belonging to the set X_i) there is no other one that would satisfy certain preferences concerning vector p . On the other hand each vector of co-ordinates of points y_j of the space R found itself in set y because the scalar product of its elements by the respective elements of the vector p is the highest among all other possible sets belonging to the set Y_j .

Each co-ordinate of the space R , indexed by $h=1 \dots l$ is represented by a real number p_h , therefore we got vector p consisting of certain numbers, the third set of elements of the Debreu system that plays a key role in it. The last set of the model, set ω , consists of a priori given real numbers – co-ordinates of point ω in the space R .

As a supplement to the above formal constraints for sets x and y , Debreu system contains a number of other conditions and properties which are relevant only from the axiomatic point of view. It is to be strongly stressed, that all sets listed above are independent on each other.

For the four sets G . Debreu has proved unambiguously and in line with all formal conditions of mathematical reasoning that there exists a set p such that every x_i minimizes scalar product $p * x_i$ and every y_j maximizes scalar product $p * y_j$, and the sum $x-y-\omega = 0$. Although formally absolutely correct, the proof and the entire model of economy proposed by Debreu *has nothing common with economics* due to misinterpreting the *economic content* of variables used.

There is no doubt that mathematics is the queen of sciences. This does not mean, however, that any use of it is reasonable. Where we face causal relationships and where content and meaning of terms matters, syntax must give way to semantics. And this is exactly the case of economic considerations. Otherwise one can go astray.

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Endnotes

1. The idea that *the agents are people who play the role of producers of commodities in order to take part in market transactions* is one of the axioms which personalist economics is founded upon, a new discipline which has been developed by the author of this paper.

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